```
A; Mceteric lumbar A1108
A; Molecule type: mRNA
A; Mose a: 1-113 - CORA
A; Mose a: 1-123 - CORA
A; Residues: 1-499, 501-965, 79', 967-1153 - ARNA
A; Residues: 1-499, 501-965, 79', 967-1153 - ARNA
A; Residues: 1-499, 501-965, 79', 967-1153 - CORA
A; Mose a: the authors translated the codon TAC for residue 1129 as Thr
A; Note: the authors translated the codon TAC for residue 1129 as Thr
A; Note: the promoter of this sequence, including the amino end of the mature protein, was conf
A; Note: Dara Cora Sci. U.S.A. 88, 10525-10529, 1991
A; Title: The promoter of the CD11b gene directs myeloid-specific and developmentally r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: GB:M76724; NID:g180018; PIDN:AAAS8410.1; PID:g553215
R;Arnaout, M.A.; Remold-O'Donnell, E.; Pierce, M.W.; Harris, P.; Tenen, D.G.
Broc. Natl. Acad. Sci. U.S.A. 85, 2776-2780, 1988
A;Title: Molecular cloning of the alpha-subunit of human and guinea pig leukocyte adhe A;Reference number: A94193; MUID:88190151; PMID:2833753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A, Molecule type: mRNA
A, Readudes: 917-1042 - ARR2-
A, Cross-references: GB:M18044
R, Hickstein, D.D.; Hickey, M.J.; Ozols, J.; Baker, D.M.; Back, A.L.; Roth, G.J.
Proc. Natl. Acad. Sci. U.S.A. 86, 257-261, 1989
A, Title: cDNA sequence for the alphaM subunit of the human neutrophil adherence recept
A, Reference number: A32218; MUID:89098893; PMID:2563162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Accession: A32218
A;Molecule type: mRNA
A;Residues: 9-1153 «HIC>
A;Cross-references: GB:J04145; NID:g189068; PIDN:AAA59903.1; PID:g386975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: DNA A; Residues: 1-9 <SHE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Accession: A41600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VLA-2 protein homo integrin alpha-2 c integrin alpha-1 c integrin alpha-4 c integrin alpha-9 c integrin alpha-9 c alpha protein alpha cha alpha prurface glyco VLA-3 alpha subuni
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          integrin alpha-6 c
integrin alpha-3 c
integrin alpha-5 c
integrin alpha-6 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      integrin alpha-E c
integrin alpha-1 c
integrin alpha 2 s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    integrin alpha-5 c
integrin alpha-V c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cell surface glyco
leukocyte surface
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cell surface glyco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                integrin alpha-v c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lymphocyte fuction
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               recept
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      integrin alpha-8 oposition-specific
                                                                                   14:12:29; Search time 15:1684 Seconds (without alignments) 7310.102 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               integrin alpha-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                           1 MALRVLLLTALTLCHGFNLD.....FKRQYKDMMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               fibronectin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Description
Gencore version 5.1.6
(c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                     283308 segs, 96168682 residues
                                                                                                                                                                                                                                                                                                                                                                                       summaries
                                                         sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S00551
RWHU1C
S03308
156126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S44142
A33998
A35854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A41543
S16516
A29637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S06046
I58409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A53213
A45226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  145914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A38457
                                                                                                                                                                                                                        Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A41131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           F31437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    844250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A27079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B36429
                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45, su
                                                         - protein search, using
                                                                                      2003,
                                                                                                                                                                                                                                                                                                               seq length: 0
seq length: 200000000
                                                                                                                                                 US-09-902-481B-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1163
1170
1163
1179
1170
1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1181
1180
1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1054
1054
1051
1053
1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1021
                                                                                      November 25,
                                                                                                                                                                                                                                                                                                                                                                                                              PIR 76:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1091
             Copyright
                                                                                                                                                                                                          BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1108.5
1089
1089
1087.5
1082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5956
4545
3513
1559
1549
                                                                                                                                                                                                          Scoring table:
                                                                                                                                                               Perfect score:
                                                                                                                                                                                                                                                                                                               Minimum DB
Maximum DB
                                                         OM protein
                                                                                                                                                                                                                                                                                                                                                                                                                     Database :
                                                                                                                                                                              Sequence:
                                                                                                                                                                                                                                                     Searched:
                                                                                      Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Result
```

integrin - fruit f	integrin alpha-2b	glycoprotein IIb -	integrin alpha-7 c	alpha-7 integrin -	leukocyte adhesion	F54F2.1 protein -	integrin alpha cha	hypothetical prote	integrin alpha v c	integrin alpha cha	integrin alpha cha	glycoprotein IIb -	integrin alpha cha	integrin alpha-1 -	glycoprotein IIb -
S40311	A34269	A60163	JC5950	161186	B30892	S44824	S38783	S28277	S60571	T09433	T09403	136916	T18523	A55348	136917
7	N	~	7	~	7	7	~	~	7	7	7	7	7	~	7
1146	1039	1037	1137	1135	126	1226	1106	1139	1045	1115	1115	764	1086	272	604
8.3	8.3	8.3	8.2	8.2	8.2	8.0	7.9	7.6	7.6	7.2	7.1	9.9	5.2	5.1	5.0
496.5	495.5	492.5	490	488	486	474.5	469.5	454.5	454	430.5	423.5	391	309	304.5	299
30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

## ALIGNMENTS

RWHUIB

Cell surface glycoprotein CD11b precursor [validated] - human

N;Alternate names: complement receptor type 3 alpha chain; leukocyte adhesion protein

eukocyte integrin alpha chain; neutrophil adherence receptor alpham chain

C;Species: Homo sapiens (man)

C;Species: Homo sapiens (man)

C;Accession: A31108; A28915; Ā41600; A30892; A32218; A46526; A26091; I52567

R;Corbi, A.L.; Kishimoto, T.K.; Miller, L.J.; Springer, T.A.

J. Biol. Chem. 263, 12403-12411, 1988

A;Title: The human leukocyte adhesion glycoprotein Mac-1 (complement receptor type 3,

A;Reference number: A31108; MUID:88315033; PMID:2457584

A. Note: part of this sequence was confirmed by protein sequencing J. Fileming, C., C.; Pahl, H.L.; Gonzalez, D.A.; Smith, T.F.; Tenen, D.G. J. Timmunol. 150, 400-90, 1933 J. Andries Structural analysis of the Coll gene and phylogenetic analysis of the alpha-in during evolution. A. Reference musber: A4625; MULD;93123748; PMID:8419480 A. Reference more companded with conceptual translation A. Residues: 1.499 MOI-1153 cFile. A. Morce: sequence extracted from NGTB backbone (NGTBP, 11364) in some but not all mature A. Reference musber: A65227; MUD:93123748; PMID:8424821,1; PID:9261049 A. Morce: medical more extracted from NGTB backbone (NGTBP, 11364) in some but not all mature A. Reference musber: A66-97; MID:921049; PMID:9319202 A. Morce: medical sequence of from NGTB backbone (NGTBP, 11364) in some but not all mature A. Reference mumber: A66-97; MID:9319204 A. Molecule evolution of the musber: A66-97; PMID:333902 A. A. Molecule evolution of the musber: A66-97; PMID:333902 A. Reference mumber: A66-97 A. Molecule evolution of the myloid-specific CD11b promoter. A. Reference mumber: A66-97 A. Molecule evolution of the myloid-specific CD11b promoter. A. Reference mumber: A66-97 A. Molecule evolution of the myloid-specific CD11b promoter. A. Reference mumber: A66-97 A. Molecule evolution of the myloid-specific CD11b promoter. A. Reference mumber: A66-97 A. Molecule evolution of the myloid-specific CD11b promoter. A. Reference mumber: A66-97 A. Molecule evolution of the myloid-specific CD11b promoter. A. Reference mumber: A61-97 A. Molecule evolution of the myloid-specific CD11b promoter. A. Reference molecule of the myloid-specific CD11b promoter. A. Reference molecule of the myloid-specific CD11b promoter. A. Reference molecule of the myloid-specific CD11b promoter. A. Reference of CD8-17049, MDB-31244996; PMID:3244996; PMID	101 NTIASKPRPBDBYPQVNNFEALKTIQNQLREKIFALEGTQTGSSSSFEHBKGGGGFSAAIT 360
MALRYLLITALITCHGFNLDTENAMTFOENRGFGGGSVVOLGGSRVVVGAPQEIVAANQR 6	Db 1081 TLIPGGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKD 1140 Qy 1141 MMSEGGPPGAEPQ 1153 Db 1141 MMSEGGPPGAEPQ 1153
GLCFLFGSNLRQOPOKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL 180  GLCFLFGSNLRQOPOKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL 180  GLCFLFGSNLRQOPOKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL 180  KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN 240  KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN 240  KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN 240  ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL 300	RESULT 2 S00551 leukocyte surface glycoprotein Mac-1 alpha chain precursor - mouse NyAlternate names: complement-3 receptor alpha chain C;Specias: Ma musculus (house mouse) C;Date: 30-Sep-1989 #sequence_revision 30-Sep-1991 #text_change 22-Oct-1999 C;Accession: S00551; 159078 R;Pytela, R. EMBO J. 7, 1371-1379, 1988 A;Title: Amino acid sequence of the murine Mac-1 alpha chain reveals homology with the A;Reference number: S00551; MUID:88312584; PMID:3044779 A;Accession: S00551

```
when the sequence of the seque
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A,Gene: GDB:ITGAX, CDIJC
A,Gene: GDB:ITGAX, CDIJC
A,KGCOSS-references: GDB:I19758; OMIM:151510
A,Map position: 16p11.2-16p11.2
C,Superfamily: cell surface glycoprotein CDIJb; von Willebrand factor type A repeat hor C,Superfamily: cell surface glycoprotein; peterodimer; magnesium; tandem repeat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the alpha subunit of a leukocy!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NLGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAP 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       XKPWFVKPAESSSSSGGGALKSTTWNINHPIFPANSEVTFNVTFDVDSHASFGNKLLLK 899
                                                                                                                                                                                                                                                                                                                                                                                                     AIVASENNMSRTHKTKFQLELPVKYAIYMIVTSDESSIRYLNFTASEMTSKVIQHQYQFN 959
                                                                                                                                                               ANVTSENNMPRINKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVS 959
                                             DCVDDSVSPIILRLNYTLVGEPLRSFGNLRPVLAMDAQRFFTAMFPFEKNCGNDSICQDD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VVNCSIAVCORIOCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYK
                                                                                                                                LSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                  ORSWRL-ACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DMMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DMMNEAAPQDAPPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1080
                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1140
                                                                720
                                                                                                                                781
                                                                                                                                                                                       780
                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                        셤
                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                 8
                                                                                                                          8
A; Residues: 11153 < PyT2-
A; Residues: 11153 < PyT2-
A; Cross-references: EMBL:X07640; NID:952982; PIDN:CAA30479.1; PID:952983
A; Cross-references: EMBL:X07640; NID:952982; PIDN:CAA30479.1; PID:952983
A; Note: the authors translated the codon CAC for residue 569 as Gln
B; Sastre, L.; Roman, J.M.; Teplow, D.; Jesuson CAC for residue 569 as Gln
B; Sastre, L.; Roman, J.M.; Teplow, D.; Jesuson Complement Procession: IS9078
A; Title: A partial genomic DNA clone for the alpha subunit of the mouse complement recept A; Reference number: IS9078
A; Molecule type: DNA
A; Residues: I1-44 < RES>
A; Molecule type: DNA
A; Residues: I1-44 < RES>
A; Molecule type: DNA
A; Residues: I1-44 < RES>
A; Molecule type: DNA
A; Residues: I1-44 < RES>
A; Molecule type: DNA
A; Residues: I1-44 < RES>
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 < RES
A; Molecule type: DNA
A; Residues: I1-44 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                    Superfamily: cell surface glychprotein CD11b; von Willebrand factor type A: Keywords: cell adhesion; glycoprotein; transmembrane protein; 1-1-16/Domain: signal sequence #status predicted <51G> (17-1153/Product: leukocyte surface glycoprotein Mac-1 alpha chain #status e: 148-318/Domain: von Willabrand factor type A repeat homology <VWA2> (1106-1129/Domain: transmembrane #status predicted <TMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KINGARENAAKILVVIIDGEKFGDPLDYKDVIPEADRAGVIRYVIGVGNAFNKPQSRREL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GSLYQCDYSTGSCEPIRLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SNGPLLGSVGSFDWAGGAFLYTSKDKVTFINTTRVDSDMNDAYLGYASAVILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MTLKALLVTALALCHGFNLDTEHPMTFQENAKGFGQNVVQLGGTSVVVAAPQEAKAVNQT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HYYEQTRGGOVSVCPLPRGORARWOCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 76.3%; Score 4545; DB 2; 18est Local Similarity 74.5%; Pred. No. 6.4e-307; Matches 860; Conservative 141; Mismatches 151;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

```
RESULT 4

KRESULT 6

C. Date: 28 - Feb-1990 Headworve andhesion glycoprotein LFA-1 alpha chain; leukocyte function asspirates (man)

C. Date: 28 - Feb-1990 Headworve 2 - Feb-1990 Heat. Change 20-Aug-1999

C. Accession: S031308; AA7455; A49759; S35044

R. Laten RS. (Corbi, A. A. 18 Berman, L.; Springer, T.

C. Gall Biol. 108, 703-712, 1989

A. ATTIO CLARS

A. Reference number: S031308 WUID: 89139587; PMID: 5537322

A. Reference number: S031308

A. Reference number: S031308

A. Reference number: S031308

A. Reference number: A. Hicksen, D. D.

P. COTWELL, R. D. G. Gollahon, K. A.; Hicksen, D. D.

P. COTWELL, R. D. G. Gollahon, K. A.; Hicksen, D. D.

R. COTWELL, R. D. G. Gollahon, K. A.; Hicksen, D. D.

A. Reference number: A4758

A. Residues: 1-20 c COR

A. Roccession: A4756

A. Roccession: A4756

A. Residues: 1-20 c COR

A. Residues: 1-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Superfamily: cell surface glycoprotein CD11b; von Willebrand factor type A repeat how repeat surface all adhesion; cytoskeleton; glycoprotein; heterodimer; surface antigen; thin 20 Domain: signal sequence #status predicted «SIG».

136-1170/Product: leukocyte adhesion glycoprotein LFA-1 alpha chain #status predicted ;154-317/Domain: von Willebrand factor type A repeat homology «VWA2»
                                                                                                                                                                                                                                 1143
                                                                                                                                                 1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       38
                       962
                                                                                                                                                                      RSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNC
                                                                                      SIAVCORIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLL
                                                                                                                                                                                                                                   PGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels 110;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1170;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
26.2%; Score 1559; DB 2; Best Local Similarity 34.3%; Pred. No. 1.5e-99; Matches 410; Conservative 210; Mismatches 464;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A,Gene: GDB:ITGAL, CD11A
A,Cross-references: GDB:119757; OMIM:153370
A,Map position: 16p11.2-16p11.2
                                                                                                                                                                                                                                                                                                                 E 1144
                                                                                                                                                                                                                                                                                                                                                          Ė 1143
                                                                                                                                                                                          1023
                                                                                                                                                                                                                                                                                                                 1144
                                                                                                                                                                                                                                   1084
                                                                                                                                                                                                                                                                                                                                                          1143
                                                                                                          963
                                                                                                                                                   1024
                            903
                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                      g
                                                    8
                                                                                                        g
                                                                                                                                                 ò
                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                  pre
                                                                                                                               (covalent) #status
                                                                                                                                                                                                                                                                                                                                         124
                                                                                                                                                                                                                                                                                                                                                                                127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTS 904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           963
                                                                                                                                                                                                                                                                                                                                                                                                                         LFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSK 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TLESLMOYSEEFRIHFTEKEFONNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNG 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAOGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRD 664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSIT 784
                                                                                                                                                                                                                                                                                                67
                                                                                                                                                                                                                                                           64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FSFPGLKSLLVGSNLELNAEVWVWNDGEDSYGTTITFSHPAGLSYRYVAEGQQQLRSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ENNMPRINKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW
                                                                                                                                                                                                                                                                                 TOFSLMOFSNKFOTHFTEEFRRTSNPLSLLASVHQLQGFTYTATAIQNVVHRLFHASYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCF
                                                                                                                                                                                                                                                                                                                                                                 QCGYSTGACEPIGLQVPPEAVMMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAP
      1.-19/Domain: signal sequence #status predicted <SIG>
5.0-1163/Product: cell surface glycoprotein CD11c #status predicted <MAT>
5.0-1167/Product: cells surface glycoprotein CD11c #status predicted <EXT>
5.149-319/Domain: extracellular factatus predicted <EXT>
5.149-319/Domain: von Willebrand factor type A repeat homology <VWA4>
5.1108-1.133/Domain: transmembrand #status predicted <TWN>
5.1134-1163/Domain: intracellular #status predicted <TNT>
61,89,392,697,735,899,939,105p/Binding site: carbohydrate (Asn) (covalent)
                                                                                                                                                                                                                                                    5 VLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLY
                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                9
                                                                                                                                                                    Score 3513; DB 1; Length 1
Pred. No. 3e-235;
138; Mismatches 296; Indels
                                                                                                                                                                      Query Match 59.0%;
Best Local Similarity 61.4%;
Matches 701; Conservative 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  845
                                                                                                                                                                                                                                                                                                                                                                                  68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   485
                                                                                                                                                                                                                                                                                                                                           65
                                                                                                                                                                                                                                                                                                                                                                                                                           125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     246
                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Db
```

Oy 1040 Db 1025 Oy 1100	Db 1083	156126 lymphocyte fuc C;Species: Mus	C;Date: 26-Ju C;Accession: R;Kaufmann, )	J. Immunol. 14 A;Title: Clonis A;Reference nur	A;Status: pre A;Molecule ty A;Residues:	A; Cross-refer C; Genetics:	A,Gene: LFA-1 C,Superfamily: F;151-315/Doma	Query Match Best Local S: Matches 409	0,	Db 1			Oy 113 Db 116	Oy 173	Db 176	Qy 232	Db 236	Qy 285	Db 282	Qy 345	Db 342	Qy 404	Db 402	Oy 461	Db 462	Qy 521	Db 519
6 LLLTALTLCHGFNLDTENAMTFQENARGFGGSVVQLQGSRVVVGAPQEI 54 : :  :	GNSTGSLYQCQSGTGHCLPVTLR-GSNYTSKYLGMTLATDPTDGSILACDPGLSRTCDENTYVKGLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMK	ONTYLSGLCYLFRQNLQGPMLQGRPGFQECIKGNVDLVFLFDGSMSLQPDEFQKIL	171 EFVSTVMEQLKKSKTLF§LMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATG 230	231 IRKVVRELFNITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDA 290 237 INVVATEVEPEFFICARDARKNIIITITAGE - ADAGAITABAKA	FRSEKSROELNTIASKPRDHVPQVNNFBALKTIQNQLREKIFAIEGTQTGSSSSFEHEM	FQTKESQETLHKFÄSKPÅSEFVKILDTFEKLKDLFTELOKKITVIEGTSKODLTSFNMEL	351 SQEGFSAAITSNGPLLSTVGSYDWAGGVF-LYTSKEKSTFINMTRVDSDWNDAYLGYAAA 409             :	410 -IILRNRVOSLVLGAPRÝHIGLVAMFRONTGMMESNANVKGTOIGAVFGASLCSVDV 466 	467 DSNGSTDLVLIGAPHYYEQTRGGOVSVCPLPRGGRARWQCDAVLYGEQGQPWGRFGAA 524	470 DQDGETELLLIGAPLFYGEQRGRVFIYQRRQLGFEEVSELQGDPGYPLGRFGEA 524	LTVLGDVNGDKLTDVALGAPGEEDNRGAVYLFHQTSGSGISPSHSQRIAGSKLSPRLQYF	ITALTDINGDGLVDVAVGAPLEEQSAVYIFNGRHG-GLSPQPSQRIEGTQVLSGIQWF	585 GQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVV 644  : : :  :        :     :::   :  :  :  :	645 - KGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQT 703	642 NYMKEGVNITICFQI-KSLYPQF-QGRLVANLTYTLQLDGHRTRRRGLFPGGRHELRRNI 699	704 QVLGLTQTCETLKLQLPNGIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVL 753	700 AVT-TSMSCTDFSFHFPVÇVQDLISPINVSLNFSLWEEEGTPRDQRAQGKDIPPILRPSL 758	754 AEDAQKLFTALFPFEKNCCNDNICQDDLSITFSFMSLDCLVVGGPREFNYTVTVRNDGED 813	759 HSETWEIPPEKNCGEDKKCEANLRVSFSPARSRALRLTAFASLSVELSLSNLEED 813	814 SYRIQVTFFFLDLSYRKYSTLQNQRSQRSWRLACESASSTEVSGALKSTSCSINHPI 871	CVEML KPHSQIPVSCEELPEESRLLSRAL SC	872 FPENSEVTFNITFDVDSKASLGNKLLKANVTSENNMPRTNKTEFQLELPVKYAVY 927	SVELHANVTCNNEDSDLLEDNSATTI	928 MVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLP-ISLVFLVPVRLNQTVI 983	трксркіноукниуоукіоргіндн	984 WDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVNCSIAVCQRIQCDIPFFG 1039	985 THOWSVQMEPPVPCHYEDLERLPDAAEPCLPGALFRCPVV 1024
òaò	d y	QQ	B ó	ò f	ò	qo	දු පු	oy G	ò	qq	ò i	a a	e ó	ò	qq	ò	qq	ò	qq	ò	qq	ò	QQ	ò	ф	ò	qo

```
L.; Teeng, E.; Springer, T.A.
147, 369-374, 1991
Ling of the murine lymphocyte function-associated molecule-1 alpha-subunit 156126; MUID:91268576; PMID:2051027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    : cell surface glycoprotein CD11b; von Willebrand factor type A repeat ho ain: von Willebrand factor type A repeat homology <VWA1>
                                 IQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVE 1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | : | | | | : : | : : | E---GDNTGGLYHCRTSSEFCQPVSLH-GSNHTSKYLGWTLATDAAKGSLLACDPGLSRT 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LGYAAA-IILRNRVOSLVLGAPRYOHIGLVAMFR--QNTGMWESNANVKGTQIGAYFGAS 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EIVAANQRGSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQT 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CSENTYVKGLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEF 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RKVVRELFNITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREG------VIRYV 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IGVGDAFRSEKSRQELNTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSS 344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPR 580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                59
                                                                                                                                                                                                                                                                                                                      1-1996 #sequence_revision 26-Jul-1996 #text_change 20-Aug-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | :|||:|||:|| :| | :- || :- || CDQNTYLSGLCYLFPQSLGFMLQNRPAYQECMKGKVDLVFLFDGSQSLDRKDFEKILEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SFEHEMSQEGFSAAITSNGPLLSTVGSYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MALRV----LLLTALTL----CHGFNLDTENAMTFQENA-RGFGQSVVQLQGSRVVVGAPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VSTVMEQLKKSKTLFSLMQYSEEFRIHFTFKEF-QNNPNPRSLVKPITQLLGRTHTATGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26.0%; Score 1549; DB 2; Length 1163;
Similarity 34.2%; Pred. No. 7.3e-99;
9; Conservative 216; Mismatches 464; Indels 106; Gaps
                                                                                                                            VVYEKQMLYLYVLSGIGGLLLLLLIFIVLYKVGFFKRNLKEKMEAGRGVPNGIP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          pe: mRNA
-1163 <RES>
ences: GB:M60778; NID:g198785; PIDN:AAA39426.1; PID:g198786
                                                                                                  PFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEG-GPPGAEP
                                                                                                                                                                                                                                                                       ction-associated molecule-1-alpha - mouse
s musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   liminary; translated from GB/EMBL/DDBJ
```

PGPLHRCSLVQDEILCHPVEHVPIPKGRHRGVTVVRSHHGVLICIQVLVRRPH QTCSENTYVKGLCFLFGSNLRQQPQ	240 NITNGARKNAFKILVVITDGEKFGDELGYEDVIPEADREGVIRYVIGVGDAFRSEKSROE 299  1:  - - - - - - - - - - - - - - - - - - -		697 FNGVVNVRICFEI-SSYTTASESGIREALLNFTLDVDVGKQRRKLQCSDVRSCLGCLKEW 755 706 LGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLF 761	ITFDVDSKAS  : : :   VVWQLEENAF  VS - TKYLNF  :   :   LSHHKEFLFH  ENLSSTCHTK  : : : OASTVCTWSQ  SFDWYIKTSH  SMD
8 & 8 & 8 & 8	6 8 6 8 6 8 6 8 6	6 E 6 E 6 E 6	8 6 8 6 8 8	8 8 8 8 8 8 8
581 LOYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECN  :::  :  :  :	Db 753 SIHTV-TKEIPFERMCGEDKKCEANÍTLSSPARSGPLRLMSSASLAVEWTLSN 804  Qy 810 DGEDSYRTQVTFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGAL-KSTSCSIN 868	ASCIETKV :	C.Species: Homo sapiens (man) C.Species: Homo sapiens (man) C.Date: 19-Oct-1995 #sequence_revision 31-Mar-2001 #text_change 31-Mar-2001 C.Accession: A53213 R.Shaw, S.K.; Cepek, K.L.; Murphy, E.A.; Russell, G.J.; Brenner, M.B.; Parker, C.M. R.Shaw, S.K.; Cepek, K.L.; Murphy, E.A.; Russell, G.J.; Brenner, M.B.; Parker, C.M. A.Title: Molecular cloning of the human mucosal lymphocyte integrin alpha(E) subunit. Un A.Reference number: A53213, MUID:94164962; PMID:8119947 A.Status: preliminary A.Status: preliminary A.Status: preliminary A.Residues: 1-1179 <sha> A.Residues: 1-1179 <sha> C.Generics: C.Generic</sha></sha>	Gene: Cross- Superf 199-37 Query Matche

£ 2

0	RESULT 8  145514  1145211  145514  1145214  1145214  1145214  1145214  1145314  C; Species: Bos primigenius taurus (cattle) C; Deccies: Bos primigenius taurus (cattle) C; Deccession: 145914  C; Accession: 145914  C; Accession: 145914  C; Accession: 145914  C; Accession: 145914  A; Title: Identification of putative ligand binding sites within the I-domain of inte A; Reference number: A54402; MUID:94193647; PMID:7511592  A; Accession: 145914  A; Status: preliminary; translated from GB/EMBL/DDBJ A; Accession: 145914  A; Status: preliminary; translated from GB/EMBL/DDBJ A; Accession: 145914  A; Status: preliminary; translated from GB/EMBL/DDBJ A; Moccession: 145914  A; Status: preliminary; translated from GB/EMBL/DDBJ A; Moccession: 145914  A; Status: preliminary; translated from GB/EMBL/DDBJ A; Moccession: 145914  A; Status: preliminary; translated from GB/EMBL/DDBJ A; Corsarceferences: GB:125886; NID:9419695; PIDN:AAB59255.1; PID:9419696 C; Superfamily: unassigned collagens; von Willebrand factor type A repeat homology P; 161-336/Domain: von Willebrand factor type A repeat homology P; 161-336/Domain: von Willebrand factor type A repeat homology P; 161-336/Domain: von Willebrand factor type A repeat homology P; 161-336/Domain: von Willebrand factor type A repeat homology P; 161-336/Domain: von Willebrand factor type A repeat homology P; 161-336/Domain: von Willebrand factor type A repeat homology P; 161-336/Domain: von Willebrand factor type A repeat homology P; 161-336/Domain: von Willebrand factor type A repeat homology P; 161-336/Domain: von Willebrand factor type A repeat homology C; Superfamily: unassigned collagens; von Willebrand factor type A repeat homology P; 161-336/Domain: von Willebrand factor type A repeat homology C; Superfamily: unassigned collagens; von Willebrand factor type A repeat homology C; Superfamily: unassigned collagens; von Willebrand factor type A repeat homology C; Superfamily: unassigned collagens; von Willebrand factor type A repeat homology C; Superfamily: unassigned collagens; von
Oy   1107 LPLIVGSSVGGLILLALITAAIYKLGFFKROYKDMMSE   1140	192 - KSKTLFSLMQYSEBERTHFTFKEFQNNPNPRSLVKPITQLGR-THTATGIRKVVRELF 239   175 GPKQTQVGTQVGENVTHFFNLNKYSSTEEVLVAAKKIVQRGGRQTHTALGTARKEF 234   1

integr

VLA-2 protein homolog

```
DFLAE-LRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIV 1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         --- LPGOGAFVRSQTETKVEPFE-VPNPLPLIVGSSVGGLLL 1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SFKSENFRHIKELNCRTASCSNÍMCWLRDLQVKGEYFLNVSTRIWNGTFAASTFQTVQLT 1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SQKSVTCNVGYPALKSKQQVTFINFDFNLQ-NLQNQASISFRALSESQEENMADNSVNL 917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KLSLLYDAEIHIT-RSININFYEVSLDGNVSSVV-HSFE--DIGPKFIFSIKVTIGSVPV 973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RLTFSVQLKNKKESAYNTEIVVDFSENLFF-----ASWSMPVDGTEVTCQIAS 858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQR------SLPI 968
                                                                                                                     346
                                                                                                                                                                                                                                         478
                                                                                                                                                                                                                                                                                         535
                                                                                                                                                                                                                                                                                                                 573
                                                                                                                                                                                                                                                                                                                                                                                       654
                                                                                                                                                                                                                                                                                                                                                                                                                                                              SRAVFNETKNSTRROTOVLGLTOTCE - - TLKLOLPNCIEDPVSPIVLRLNFSL - VGTPL 743
                                                                     287
                                                                                            304
                                                                                                                                            363
                                                                                                                                                                    401
                                                                                                                                                                                    455
                                                                                                                                                                                                                                                                 513
                                                                                                                                                                                                                                                                                                                               536 NGLENARFGSAIAALSDINMDGFNDVIVGSPLENQNSGAVYIYNGHEGM-IRLRYSQKIL 594
                                                                                                                                                                                                                                                                                                                                                               631
                                                                                                                                                                                                                                                                                                                                                                                                                             YTTGVCSDVSPDF-QLRTSFAPAVQTCP-SFIDVVVVCDESNSIYPWD--AVKNFLEKFV 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SYLGYSVASISTGNSVHFVAGAPRANYTGQIVLYSVN----ENGNVTVIQSQRGDQIGS
                                                                                                                                                                                                                                                                                 YFGSVLCAVDVNKDTITDVLLVGAPMYMNDLKKEEGRVYLFTITKG-ILNWH--QFLEGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SMA-----SVITHIPQYTKDKNPLMYLTGVHTDQAGDISCEAEINPLKIGQTSSSV
                                                                                                                                                                    EHEMSOEGFSAAIT -- SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT -- RVDSDMN-D
                                                                                                                                                                                                                                                                                                                 QGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIA
                                                                                                                                                                                                                                                                                                                                                                               GSDRAFSSHLQYFGRSLDGYGDLNGDSITDVSVGAFGQVVQLWSQSIADVSVDASFTPKK
                                                                                                                                                                                                                                                                                                                                                                                                               VARNVFECNDQVVKGKEÅGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALD----SGRPH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             744 SAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITF----SFMSLDCLVVGGPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             800 EFNVTVTVRNDGEDSYRMQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASST-EVSG
                                                                                   -GDAFRSEKSRQELNTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSF
                                                                                                                                   AYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFRONTGMWESNANV-----KGTQIGA
                                                                                                                                                                                                                                                                 YFGASLCSVDVDSNGSTDLVLIGAPHYYEQTR---GGQVSVCPLPRGQRARWQCDAVLYGE
                                                                                                                                                                                                                                                                                                                                                                 GS--KLSPRLQYFGQSL$GGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPRE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEFQL
                       EQLK--KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLL----GRTHTATGI
                                              QGLDIGPTKTQMGLIQYANNPRVVFNLNTFKSKD---EMIKATSQTFQYGGDLTNTFKAI
                                                                      RKVVRELFNITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGV----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAAEIDTYNPQIYVIEENTVTIP---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LALITAALYKLGFFKRQYKDM 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STAEI-LFNDSVFTL---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1069
                                                                                                                                                                                                                                                                                                                                                                                                               632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      811
                                               189
                                                                      232
                                                                                              246
                                                                                                                     288
                                                                                                                                             305
                                                                                                                                                                     347
                                                                                                                                                                                          364
                                                                                                                                                                                                                   402
                                                                                                                                                                                                                                          424
                                                                                                                                                                                                                                                                  456
                                                                                                                                                                                                                                                                                         479
                                                                                                                                                                                                                                                                                                                 514
                                                                                                                                                                                                                                                                                                                                                                 574
                                                                                                                                                                                                                                                                                                                                                                                         595
                                                                                                                                                                                                                                                                                                                                                                                                                                       655
                                                                                                                                                                                                                                                                                                                                                                                                                                                               688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             역
당
연
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                         g
                                                                                                             ò
                                                                                                                                     g
                                                                                                                                                                  8 6
                       ò
                                                                     ò
                                                                                        g
```

g

ઠે

g

ઠે

셤 ઠે ద ઠ 셤 ठे

ઠે

```
C;Accession: S44142
R;Edelman, J.M.; Chan, B.M.; Uniyal, S.; Onodera, H.; Wang, D.Z.; Damjanovich, L.; LaT submitted to the EMBL Data Library, January 1994
A;Description: The mouse VLA-2 homologue supports collagen and laminin adhesion but no A;Reference number: S44142
A;Accession: S44142
A;Accession: S74142
A;Residue: preliminary
A;Residues: 1-1178 «EDE»
                                                                                                                                                                                                                                                          homology
                                                                                                                                                                                                                                                                                                                                                             44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          G-GDNFQMEMAQVGFSADYAPQNDIIMIGAVGAFDWSGTLVQETSHKPVIFPKQAFDQVL 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GRPHSRAVFNETKNSTRRQTQVLGLTQTCET - - LKLQLPNCIEDPVSPIVLRLNFSLVGT 741
                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                         74
LA-2 protein homolog - mouse
;Species: Mus musculus (house mouse)
;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 20-Sep-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            135 QCGNQYYATGIC----SDVSPDFQFLTSFSPAVQACPSL-VDVVVVCDESNSIYP--WEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GSSSSFEHEMSQEGFSA--AITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT--RVD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTR - -GGQVSVCPLPRGQRARWQCDAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALD----S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCSENTYVKGLCFLFGSNLRQQPQ---KFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SDMN-DAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANV----KGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QRIAGSKLSPR--LQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QKILGSNGAFRRHLQFFGRSLDGYGDLNGDSITDVSIGALGQVIQLWSQSIADVAIEALF
                                                                                                                                                                                                                                                                                                                                                                                                                              15 IMLVQGILNCLAYNVGLPGAKIFSGPSSEQFGYSVQQLTNPQGNWLLVGSPWSGFPENRM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GSLYQC--DYSTGSCEPIRLQ-----VPVEAVNMSLGLSLAATTSPPQLLACGPTVHQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MKEFVSTVMEQLK--KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLG-RT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GV-----GDAFRSEKSRQELNTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQT
                                                                                                                                                                                                                                     A;Cross-references: EMBL:229987; NID:g473098; PIDN:CAA82877.1; PID:g473099 C;Superfamily: unassigned collagens; von Willebrand factor type A repeat h: F;169-344/Domain: von Willebrand factor type A repeat homology <VWA2>
                                                                                                                                                                                                                                                                                                                                                                                                 5 VLLLIALTLCHGFNLDTENAMTFQ-ENARGFGQSVVQL---QGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HTATGIRKVVRELFNITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                   Query Match
18.3%; Score 1089; DB 2; Length 1178;
Best Local Similarity 28.1%; Pred. No. 6.5e-67;
Matches 348; Conservative 209; Mismatches 492; Indels 188;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
```

임

ઠે

중 유

음 상 음

8

원 상

Db .706 SRVTSRGVFRENSERFLØKAMVVNEVØKCSEHHISIQKPSDVVNPLDLRVDISLENP 762	C;Superfamily: unassigned collagens; von Willebrand factor type A repeat homology C;Keywords: cell adhesion; glycoprotein; heterodimer; transmembrane protein
Qy 742 PLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDC 792	F;1-29/Domain: signal sequence #status predicted <sig> F;30-1133/Domain: extracellular #status predicted <ext></ext></sig>
Db 763 GTSPALEAYSETVKVFSIPFYKECGSDGICISDLILDVQQLPALQTQSF 811	F;172-347/Domain: von Willebrand factor type A repeat homology <vwa2> F;1134-1154/Domain: transmembrane #stetus predicted <twn></twn></vwa2>
Qy 793 LVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESAS 852	r;1155-1181/Domain: intracellular #status predicted <t11> F;105,112,343,432,460,475,699,1057,1074,1081/Binding site: carbohydrate (Asn) (covalen</t11>
812 IVSNQNKRLTFSVILKNRGESAYNTVVLABFSENLFFASFSMPVDGTE 8	gth 1181;
853 ST-EVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRT 9	Matches 339; Conservative 214; Mismatches 498; Indels 193; Gaps
ON 912 NKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMOHOYOVSNLGOR 964	DD 11 LPLILVIALSQCILNCCLAYVVGLPEAKIFSGPSSEOFGYAVQOFINPKGNWLLVGSPWS 70
Db 917 NKADNSVSLTIPLLYDARLHLT-RSTNINFYEISSDENAPSVIKSVEDIGPKFIFSL 972	Qy 54 IVAANQRGSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLA 104
Qy 965SLPISLVPLV	Db 71 GFPENRMGDVYKCPVDLSTATCEKLNLQTSTSIPNVTEMKTNMSLGLLLTRNMGTGGFLT 130
Db 973 KVTAGSAPVSMALVTIHIPQYTKEKNPLLYLTGIQTDQAGDISCTABINPLKLPHTA 1029	Qy 105 CGPTVHQTCSENTYVKGLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPH 164
Oy 986 RPQVTF-SENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEF 1044	Db 131 CGPLWAQQCGNQYYTTGVCSDISPDF-QLSASFSPÄTQPCFSL-IDVVVVCBESNSIYPW 188
Db 1030 -PSVSFKNENFRHTKE	Qy 165 DFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLL 222
1069 FINVTTRÙWNRTFAASTEQTVQLTAAABIDTHNPQLFVIEENAVTIPLMIMKPTEKAEVP 1	223 G-RTHTATGIRKVVRELFNITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVI 28
Qy 1105 NPLPLIVGSSVGCLLLLALITAALYKIGFFKRQYKDM 1141	:   :   : : :    :    :    :
Db 1129 TGVIIGSIIAGILLLLAWIAGLWKLGFFKRQYKKM 1163	282 RYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQYNNFEALKTIGNQLREKIFAIE 33
RESULT 10	RFGIAVLGYLNRNALDTKNLIKEIKAIASIPTERYFFNVSDEAALLEKAGTLGEQIFSIE 36
A33998 integrin alpha-2 chain precursor - human N/Alternate names: CD49b; platelet glycoprotein GPIa; VLA-2/collagen receptor alpha-2 ch	QY 337 GTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT- 393
C;Species: Homo sapiens (man) C;Date: 30-Mar-1990 #sequence revision 18-Sep-1992 #text_change 21-Jul-2000 C;Accession: A33998; B56793; Ā53117 R:Takada V : Hemler M F	Qy 394 -RVDSDMN-DAYLGYAAAIILRNRYQSLVLGAPRYQHIGLVAMFRQNTGMWESNANV 448 1:
J. Cell Biol. 109, 397-407, 1989 A; Title: The primary structure of the VLA-2/collagen receptor alpha(2)-subunit (platelet A; Reference number: A33998; MUID:89308879; PMID:2545729	449KGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPRGQRAR
A; Accession: A33998 A; Molecule: type: mRNA	480 QAHRGDQIGSYFGSVLCSVDVDKDTITDVLLVGAPMYMSDLKKEEGRVYLFTIKKGILGQ
A;Residues: 1-1181 <tak> A;Cross-references: GB:X17033; NID:g33906; PIDN:CAA34894.1; PID:g33907 A;Note: the authors translated the codon GAT for residue 802 as Gln, GTC for residue 803</tak>	Qy 504 WQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAFGEEDNRGAVYLFHGTSGSG 563
Biochem. J. 279, 419-425, 1991 A;Title: Separation of important new platelet glycoproteins (GPIa, GPIc, GPIc*, GPIIa an A;Reference number: A56793; MUID:92061944; PMID:1953640	Qy 564 ISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRV 621
A;Accession: B56793 A;Molecule type: protein A;Residues: 30-43 <cat></cat>	622 KAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLRECQIQSVVTYDLAL
A; Experimental source: platelet R; Zutter, M.M.; Santoro, S.A.; Painter, A.S.; Tsung, Y.L.; Gafford, A. Right Chem 249 461-469 1994	Db 656 AIBASFTPEKITLVNKNAQIILKLCFSAKFRPTKQNNQVAIVYNITL 702
A;Title: The human alpha-2 integrin gene promoter. Identification of positive and negation A;Reference number: A53117; MUID:94103255; PMID:8276836	DADGESSRYTSRGLFRENNERCLQKNWVNQAQSCPEHIIYIQEPSDVVNSLDLRVD
	736 FSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLD
A;Cross-references: GB:L24121; NID:g400342; PIDN:AAA16619.2; PID:g4583535 A;Note: authors translated the codon GTA for residue 17 as Leu	760 ISLENPGTSPALEAYSETAKVPSIPFHKDCGEDGLCISDLVLDVRQIPAAQEQP
C.Generics: A;Gene: GDB:ITGA2; CD49B A;Cross-references: GDB:128031; OMIM:192974	CY 192 CLOVGGFREENVIOLEUSTRIQUIEFFELDLSTRKVSTLQNQRSQRSRLACESA 851  1   1   1   1   1   1   1   1   1   1
A;Map position: 5q11.1-5q11.2	

ř.

	123	RESULT 12 A41131 Jymbhocyte-Peyer's patch adhesion molecule alpha 4 precursor - mouse lymphocyte-Peyer's patch alpha-4 C;Species: Mus musculus (house mouse) C;Species: Mus musculus (house mouse) C;Date: 05-Jun-1992 #sequence_revision 05-Jun-1992 #text_change 24-Sep-1999 C;Accession: A41131, 51674 R;Neuhaus, H; Hu, M.C.T.; Hemler, M.E.; Takada, Y.; Holzmann, B.; Weissman, I.L. J. Cell Biol. 115, 1149-1158, 1991
99 SST-EVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPR 910  962 EVTCQVAASQKSVACDVGYPALKREQQVTFTINFDFNLQ-NLQNQASLSFQALSESQEEN 920  973 TYTTEFQLELPVKYAVYMVTSHGGYTFTINFTASENTSRVMQHQYQVSNLGQR 964  964 S21 KADNLVNLKIPLLYDAEIHLTRSTNINFYEISSDGNVPSILKGQR 964  965SLPISLVFLV	RESULT 11 Altegrin alpha-1 chain precursor - rat C.Species: Rattus norvegicus (Norway rat) C.Species: Rattus Rattus norvegicus (Norway rat) C.Species: Rattus Rattus norvegicus (Norway rat) R. Ignatius, M.J.; Jagage, T.H.; Houde, M.; Tawil, J.W.; Barton, A.; Esch, F.; Carbonetto, R. Ignatius, M.J.; Jagage, T.H.; Houde, M.; Tawil, J.W.; Barton, A.; Esch, F.; Carbonetto, A.Rtelemoe number: Als854; Mulb.990, 1100:90310125; PMID:280249 A.Rtelemoe number: Als854; Mulb.956493; PIDN:CAA36384.1; PIDS:G56494 A.Rcession: Als864 A.Rcession	Qy 229 TGIRKUVRELFNITNGARKNAFKILLVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGUG 288

g

엄

ò

qq

ò Ω ò g ò q ò g ò d ò g õ g ò g ò g ò g ò g ò

ò

```
Reywords: cell adhesion; cytoskeleton; duplication; glycoprotein; heterodimer; trans: 1-39/Domain: signal sequence #status predicted <SIG> 40-1038/Product: integrin VLA-4 alpha-4 chain #status predicted <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: mRNA
A; Readidues: 1-1038 4-TAK>
A; Cross-references: GB:X16983; EMBL:X15356; NID:g33945; PIDN:CAA34852.1; PID:g33946
R; Rosen, G.D.; Birkenmeier, T.M.; Dean, D.C.
Proc. Natl. Acad. Sci. U.S.A. 88, 4094-4098, 1991
Proc. Natl. Acad. Sci. U.S.A. 88, 4094-4108, 1991
A; Title: Characterization of the alpha-4 integrin gene promoter.
A; Reference number: A39355; MUID:91239513; PMID:2034655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             to other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a superfamily of
                                                                                                                                                                                                                                                                                         1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ----- 1106
                                                                                                                                                                                                                                                                                                                                                                                                              1004 --RLPSHSDFLAELRKAPVVNCSIA--VCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIK 1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       918
                                                                                                                                                                                                                                                                                                                                                  876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               968
                                                                                                                                                                                                    :: | : | : | : | : | : | | : | | : : | | | : : : | | : | : | | : | : | | : | : | | : | : | | : | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | | : | : | | : | : | | : | : | | : | : | | : | : | | : | : | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  integrin alpha-4 chain precursor - human
N;Alternate names: CD49d; very late antigen-4 alpha chain; VLA-4 alpha chain
C;Species: Homo sapiens (man)
C;Date: 01-Dec-1989 #text_change 24-Sep-1999
C;Accession: S06046; A39355; D28018
R;Takada, Y.; Elices, M.J.; Crouse, C.; Hemler, M.E.
EMBO J. 8, 131-1369, 1989
A;Title: The primary structure of the alpha(4) subunit of VLA-4: homology to A;Reference number: S06046; MUID:89356603; PMID:2788572
                                                                               EASVHIOLEGRPSILEMDETSSL------KFEIKATAFPEPHPKVIELNKDENVAH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSEN--
                                                                                                                                                              907 NMPRINKTEFQLELPVKYAVYMVVISHGV ----YQVS
                                                                                                                                                                                                                                                                                                                            VLLLTALTLCHG--FNLDTENAMTFQ-ENARGFGQSVV-QLQGSR--VVVGAPQEIVAAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
10.7%; Score 638; DB 2; Length 1038;
Best Local Similarity 23.7%; Pred. No. 1.1e-35;
Matches 296; Conservative 175; Mismatches 417; Indels 360;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    part of
                                                                                                                                                                                                                                                                                                                                                                                                                                                          877 AGTLTDIVKFLSKTDKR-LLYCMKADQHCLDFLCN---FGKMESG----
                                                                                                                                                                                                                                                                                      NLGORSLP-ISLVFLVPVRLNQTVIWDRP--QVTFSENLSSTCHTKE--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1060 TSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>1</u>8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AjGene: GDB:ITGA4; CD49D
A;Cross-references: CDB:128032; OMIM:192975
A;Map postition: 2q31-2q32
C;Superfamily: integrin alpha-4 chain
                                                                                                                                                                                                                                                                                                                                                  820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               919
                                                                                                     902
                                                                                                                                                                                                                                                                                      960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                음
                                                                                           g
                                                                                                                                                              ઠે
                                                                                                                                                                                                                임
                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
A;Title: Cloning and expression of cDNAs for the alpha subunit of the murine lymphocyte-A;Reference number: A41131; MUD:92064645; PMID:1840602
A;Accession: A41131
A;Accession: A41131
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-1039 < MRD.
A;Residues: 1-1039 < MRD.
C;Superfamily: incegrin alpha-4 chain
C;Keywords: cytoskeleton; transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            363 RVLVGSDKYA-ARFGESIANLGDIDNDGFEDIAIGAPQEDDLRGAVYIYNGRV-DGISST 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            789 SLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLAC 848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PQLLACG---PTVHQTCSENTYVKGLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLID 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             157 GSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVK 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  217 PITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEAD 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               337 GTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAGGVFLY--TSKEKSTFINMTR 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    395 VDSDMNDAYLGYA--AAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANV---- 448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             249 QNQVKFGSYLGYSVGAGHFRSPHTTEVVGGAPQHEQIGKAYIF----SIDENELNIVYEM 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPRGQRA-RWQCD 507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPS 567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HSORIAGSKLSPRLOYFGØSLSGGODLTMDGLVDLTVGA--QGHVLLLRSOPVLRVKAIM 625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ---VGTPLSAFGNLRPVLAEDAQR-LFTALFPFEKNCGNDNICQDDLSITFS----FM 788
                                                                                                                                                                                                                                                                                                                                                                                                                                          57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ---PHSRAVF--NETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSL--
                                                                                                                                                                                                                                                                                                                                                                                                                                          2 ALRVLLLTALTLCHGFNLDTENAMTFQ-ENARGFGQSVV-QLQGSR--VVVGAPQEIVAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                277 REGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALDSGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               --SCEPIRLOVP-----VEAVNMSLGLSLAATTSP-
                                                                                                                                                                                                                                                                                                                                                                                 Gapa
                                                                                                                                                                                                                                                                                                                                                                              Indels 368;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -----NFAS-----
                                                                                                                                                                                                                                                                                                               Length 1039;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ----RKFGE--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GSIVTCGHRWKNIFYMKSDNKLPTGICYVMPSDLRTELSK------
                                                                                                                                                                                                                                                                                                                  Score 667; DB 2; L
Pred. No. 1.1e-37;
190; Mismatches 412;
                                                                                                                                                                                                                                                                                                                  11.2%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N----QRGSLYQCDYSTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S-HPESVNRTKFDCT---
                                                                                                                                                                                                                                                                                                                                            Similarity 22.6
34; Conservative
                                                                                                                                                                                                                                                                                                               / Match
Local Simi]
ses 284; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           593
                                                                                                                                                                                                                                                                                                                                                                        tches
                                                                                                                                                                                                                                                                                                                  Query |
Best LA
Matche
```

ini

mole

52;

SLS-HPESVNRTKF 490  GR	LETREVUIDA SUVTYDLALDS                   IVLFYIMSLDVI SPIVLRLNFSLI TPIQIEAAYHL SIT-FSFM QVSAKIGFLKP QNORSORSWELKP GNORSORSWELKP LLLKANVTSEN             LLIKANVTSEN             LSITVHATCENMOHOYOUS  VEROMLIFHVI	432 SLSMFGGSISGQIDADNNGYVDVAVGAFRSDSAVL 638 ECNDQVVKGKEAGEVRVCLHVQKSTRDBLREGGIQ 491 DCVENGWPSVVIDLTLCFSYKGKEVPGY 693 NETKNSTRRQTQVLGLTGTCETLKLQLPNCIEDPV 693 NETKNSTRRQTQVLGLTGTCETLKLQLPNCIEDPV 748 NLRPVLABDAQR-LFTALFPFEKNCGNDNICQDDL 748 NLRPVLABDAQR-LFTALFPFEKNCGNDNICQDDL 748 NLRPVLABDAQR-LFTALFPFEKNCGNDNICQDDL 748 NLRPVLABGAGR-LFTALFPFEKNCGNDNICQDDL 748 NLRPVLABGAGR-LFTALFPFEKNCGNDNICQDDL 748 NLRPVLABGAGR-LFTALFPFEKNCGNDNICQDDL 748 NLRNVSLFNAGBDSYRTQTFFFPLDLSYRKVSTLEL 663 LMLNVSLFNAGDDAYETTJHVKLPVGLYFIKILEL 861 KSTSCSINHPIFPENSEVTFNITFDVDSKASLGNK 714 Q-LDCSIGYIYVDHLSRIDISFLLDVSSLSRAEBD 919 ELPVKXAVYMVTSHGVSTKYLNFTASENTSRV 1	8 6 8 6 8 6 8 6 8 6 8 6 8
CARPOVINCEIA 1026   CAPPET   CAPPET	SSTCHTKERLPSHSDFLAELR	973 LVPVRLNQTVIWDRPQVTFSENLSSTC 833 MVPNSFSPQTDKLFNILDVQTTTGEC 1027 VCQRIQCDIPFEGIQEEFNATLKGNLSFDWYIK 1027 VCQRIQCDIPFEGIQEEFNATLKGNLSFDWYIK 866 VCALEQQKSAMQTLKGIVRFE 1077DSVFTLLPQQGAFVRSOTETKVEPFEV	8 8 8 8

```
38:D25303; NID:9464180; PIDN:BAA04984.1; PID:9533327
3, C.; Ferrando, R.; Pytela, R.; Sheppard, D.
38-1297, 1993
1 tissue distribution of the integrin alpha9 subunit, a novel par
449459; MUID:94064789; PMID:8245132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            K.; Ūeda, R.; Horio, Y.; Murata, Y.; Tamari, M.; Uchida, K.; Tal
1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        egulation of a novel integrin alpha subunit gene at 3p21.3 in sm.
58409; MUID:94119603; PMID:8290272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SGGQDLTMDGLVDLTVGA--QGHVLLRSQPVLRVXAIMEPNPREVARNVFEC 639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT-RVDSDMNDAYLG 405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ILRNRVQSLVLGAPRYQHIGLVAMFR--QNTGMWESNANVKGTQIGAYFGASL 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KNSTRROTOVLGLTOTCETLKLQLPNCIEDPVSPIVLRLNFSL----VGTPLS 744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OVL----AEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFM--SLD----CL 793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NGSTDLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRF 521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3KEAGEVRV-CLHVQ-----KSTRDRLREGQIQSVVTYDLALDSGRPHSRAV 691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3FNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASS 853
ns (man)
sequence_revision 02-Jul-1996 #text_change 31-Dec-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10.6%; Score 630; DB 2; Length 1035;
ty 26.5%; Pred. No. 3.9e-35;
ervative 160; Mismatches 332; Indels 164; Gaps
                                                                                                                                                            in alpha-4 chain
ein; metal binding; transmembrane protein
sequence #status predicted <SIG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             in precursor - human
ens (man)
```

b 463 SLDATLNTEP	y 675VTYDLALDSG-RPHSRAVFNETKNSTRRQTQVLGL-TQTCETLKLQ 718	y 719 LPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEK 769	770 NCGNDNICQDDLSITFSFMSLDC	830 RKVSTLONQRSQRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNIT :: ::       ::         ::	y 884 FDVDSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTK 938	y 939 YLLVFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 976  :	TO YOUR PERKANSEALIGNEYN-HITEVARIOSSNAGEVIELICIGN  TRINGTVINDEPCVTFSERISSTCHTRERLESHSDELABERKAPVV  1	
셤	& A	& A	& g	& A	& <del>a</del>	& 8	4 5 4 5 4 5 4 8 8 9	
Db ,648 ALGAVKNISLNISISNLĢDDAYDANVSRNVSRELFFINMWQKEEMGISCELLES 701	QY 854 TEVSGALKSTSCSINHPİFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMFRTNK 913  Db 702 DFLKGSVGFPFMRSKSKYEFSVIFDTSHLSGEEEVLSFIVTAQSGNTER 750	Qy 914 TEFQLELPVKYÄVYNVTSHGVSTKYLNFTASENTSRVMQHQY 956  1	QY 957 QVSNLGQRSLPISLVFL-VPVRLN	OY 1005 LPSHSDFLAELRKAPUVNCSIAVCORIOCDIPFFGIQEEFNATLKGNLSFD 1055  Db 871 ENIFHTIFAFFTKSGRKVLDCEKPGISCLTAHCNFSALAKEESRTID 917	OY 1056 WYIKTSHNHLLIVSTAETLENDSVFTLLPGQGAFVRSQTETKVEP1100  Db 17MLNT-EILKKDSSSVIQFMSRAKVKVDPALRVVEIAHGNPEEV 962	OY 1101FEVPNPLPLINGSSVGGLLLALITAALYKLGFFKROYKDMW 1142	SULT 15  SULT 15  SULT 15  MAN 1998  Date: 29-0ct-1999 #text_change 21-Jan-2006  Date: 29-0ct-1999 #text_change 21-Jan-2006  Accession: T31437  Date: 29-0ct-1999 #text_change 21-Jan-2006  Hertzler, P.L.; McClay, D.R.  Date: 29-0ct-1999 #text_change 21-Jan-2006  Hertzler, P.L.; McClay, D.R.  Date: 21-Jan-2006  Hertzler, P.L.; McClay, D.R.  Description: Alpha 801, a sea urchin integrin which binds laminin.  Accession: T31437  Status: preliminary; translated from GB/EMBL/DDBJ  Accession: T31437  Status: preliminary; translated from GB/EMBL/DDBJ  Accession: T31437  Status: brids laminin.  Residues: 1-1041 - HRRA  Accession: T31437  Status: brids laminin.  Description: binds laminin.  Description: binds laminin alpha-2b  Function:  Description: binds laminin  Description: binds la	620

n.

34 498 8.4 1179 35 493 8.3 1033 36 491.5 8.3 1146 37 489.5 8.2 1039 38 489 8.2 1025 40 474.5 8.0 1226 41 469.5 7.9 1191 42 469.5 7.6 1139	424.5 7.1 383 6.4	RESULT 1 ITAM HUMAN ID ITAM HUMAN STANDARD	AC 911215 C DT 01-0UU-1989 (Rel. 11, C) DT 01-0CT-1996 (Rel. 34, Lo DT 15-SEP-2003 (Rel. 42, Lo DT 15-SEP-2003 (Rel. 42, Lo		OS Budaryotas Metazoa; Cho. OC Budaryotas Metazoa; Cho. OC Mammalia: Eutheria: Prin	NCBI_TaxID=9606; [1] SEQUENCE FROM N.A.	RA Corbi A.L., Kishimoto T RA "The himan lenkocote ad					homology to the al		RX MEDLINE=88257215; Pubme			RN [4] RP SEQUENCE FROM N.A.			RT the alpha-integrin gene	evolution."; J. Immunol, 150:480-4	RN [5]		Roth G.J.;	RT "CDNA sequence for the RT adherence receptor indi	Proc. Natl. Acad. S [6]
Compugen Ltd.  Compugen Ltd.  Search time 9.30328 Seconds (without alignments) and a seconds appress 244 Million cell undares/sec	FKRQYKDMMSEGGPPGAEPQ 1153		гв: 127863			results predicted by chance to have a to the score of the result being printed, of the total score distribution.		Description	P11215 homo sapien	ре	P20701 homo sapien	snu.	DOMO DOMO		Q62469 mus musculu P17301 homo sapien	075578 home sapien P18614 raftus norv	Q00651 musculu P13612 homo sapien		Q91687 xenopus lae P17852 cricetidae	Q62470 mus musculu P11688 mus musculu	gall	P23229 homo papien	homo		P06756 homo sapien P26009 qallus qall	
- 2003 - 2003   model		5. 60	chosen parameters:	0% 100% 45 summaries		results predic to the score of the total s	SUMMARIES	ID	ITAM HUMAN	ITAX HUMAN	ITAL HUMAN	ITAE_MOUSE	ITAE HUMAN ITA1_HUMAN	ITAH HUMAN ITA2_BOVIN	ITA2 MOUSE	ITAG HUMAN		ITA9_HUMAN	ITA4 XENLA ITA3 CRISP	ITA3 MOUSE	ITAV CHICK	ITA6_HUMAN	ITAS_HUMAN	ITA3 HUMAN ITA6_CHICK	ITAV HUMAN	
~	81 AL	, Gar	hits satisfying c ength: 0 ength: 200000000	Match Match first	SwissProt_41:*			Length DB		4 -4 -	٠,٠٠,٠	1167 1	1179 1	1189 1 1170 1		·	1039	1035	1032 1	1053 1	1034 1	1130 1	1049 1	1066 1 1072 1	1048 1	1091 1
Copyright protein search, November 25,	US-09-902-481B 5956 1 MALKVLLLTALT: BLOSUM62		hits s length: length:	Minimum Maximum Listing	SwissPr	is the r ater thar rived by	٠	ery	99.7	. 60 0	26.2	19.6														8 8
OM protein - pro	Title: Perfect score: Sequence: Scoring table:		Total number of Minimum DB seq ] Maximum DB seq ]	Post-processing:	Database :	Pred, No. is the number of score greater than or equa and is derived by analysis		Result No. Score	E)		5 1563	11					16 667 17 638									32 512.5 33 508

Q61738 mus musculu Q9qum0 mus musculu	Q24247 drosophila P08514 homo sapien	P53708 homo sapien	P113/8 cavia porce P34446 caenorhabdi	Q13683 homo sapien O63258 rattus norv	Q03600 caenorhabdi	O44386 drosophila	Q9w1m8 drosophila
ITA7_MOUSE ITAB_MOUSE	ITA1_DROME ITAB_HUMAN	ITA8 HUMAN	PAT2_CAEEL	ITA7 HUMAN ITA7 RAT	INA1_CAEEL	ITA3 DROME	ITAS_DROME
		٦,	4 ~		-	-	7
1179	1146	1025	1226	1181	1139	1115	1000
8.8 4.6.	80 80 	89 0	0 00	0.7	7.6	7.1	4.9
4 9 8 8 8 8 8	491.5	489	474.5	472	454.5	424.5	383
34 35	36	38	40	41	43	44	45

PUBS14 nono sapien P53708 homo sapien P11578 cavia porce Q13681 nono sapien Q63258 rattus norv Q03560 caenorhabdi Q94186 drosophila Q941m8 drosophila	HUMAN STANDARD; PRT; 1152 AA. P11215; P113M HUMAN STANDARD; PRT; 1152 AA. P11215; P11215; P11315; P134; P134 HUMAN STANDARD; P11215; P11215; P11215; P11215; P11215; P11315; P11315; P134;	tomi;	(complemen ructure, a and factor arris P.,	Modecular cloning of the alpha subunit of numan and guinea pig leukocyte adhesion glycoprotein Mol: chromosomal localization and homology to the alpha subunits of integrins."; proc. Natl. Acad. Sci. U.S.A. 85:2776-2780(1988). [3] SEQUENCE FROM N.A. MEDLINE-88257215; PubMed=2454931; Arnaout M.A., Gupta S.K., Pierce M.W., Tenen D.G.; "Amino acid sequence of the alpha subunit of human leukocyte adhesion receptor Mol (complement receptor type 3).";	[4] SEQUENCE FROM N.A. SEQUENCE FROM N.A. SEQUENCE PROM N.A. SEQUENCE PAIR 1.1. SEQUENCE PAIR H.L., Gonzalez D.A., Smith T.F., Tenen D.G.; "Structural analysis of the CD11b gene and phylogenetic analysis of "Structural analysis of the CD11b gene and phylogenetic analysis of genomic organization and suggest early diversification during evolution.", 1. Immunol. 150:480-490(1993).	<pre>Baker D.M., Back A.L.,  of the human neutrophil to integrin alpha subunits."; 61(1989).</pre>
B. HUMAN B. HUMAN M. CAVEEL 2. CAEEL 7. HUMAN 1. CAEEL 3. DROME 5. DROME	; 11: ce up cion ; surfa	niata arrhi: r L.J	copro ning, llebr 88).	ubunı ol: c inte 2776- 8176- subu type	D.A. gene monst early	в J., bunit logy 257-2
ITAB HUMAN ITAB HUMAN ITAM CAVPO ITAM CAVPO ITAT CAEEL ITAT HUMAN ITAT CAEEL ITAS DROME ITAS DROME ITAS DROME	PRT  d) equeno nnotal Cell (CD111) or).	; Cra; ; Cat; 7584; Mille	n gly Clor on Wi 11 (19 3753;	pha sein Mein Mein Mein Mein Mein Mein Mein M	9480; zalez CD11b ly de gest	63162; , Ozols J., a M subunit s homology A. 86:257-2
	eate ist si ist a ior (i iin)	data nates nates nates Nates	lesio bunit 18, v 3-124 1=283	pe al oprot bbuni J.S.A J=245 t Pi the	fami fami fami fami fami fami	N.A. 1=256 1.J., alpha cates J.S.A
1039 1025 1025 1126 11130 1000	NDARD; 11, Cr 34, La 42, La recure recure ha che ince re	.; Chordata; ;; Primates; ;; Primates; PubMed=24575 loto T.K.; Mi	te adriversite adr	r of the glycc pha gr. Sci. the Sci. th	PubMec H.L. is of 1 gene on and	FROM N.A. PubMed=2563 .ckey M.J., .the alpha .the alpha .indicates
888877779 7.7.7.0.6.6.1.4.	STA (Rel. (Rel. (Rel.) (Rel.) (Rel.) (Rel.) (Rel.)	4 (Human) 4 (Human) 5 (Human) 5 (Human) 5 (Human) 5 (Human) 5 (Human) 6 (Hum	leukocy lb) alp the in em. 263 OM N.A. 90151;	Stoning The sion the all Acad.  MN.A.  S7215; Gupt sequer (complete)	OM N.A. 23748; ., Pahl analys ntegrir anizati	OF 9-1153 10098893; P 10.D., Hic ; luence for luence for receptor :1. Acad. S
4 4 4 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	LT 1 HUMAN 1TAM HUMAN P11215,01-1015,01-1016,01-001-1016,01-001-1016,01-0016,0	Homo sapiens (Human) Eukaryota; Metazoa; Mammalia; Eutheria; NCBI TaxID=9606; [1] SEQUENCE FROM N.A. MEDLINE=68315033; Pul Corbi A.L., Kishimot.	"The human I type 3, CD11 relation to 12 Biol. Ch( [2] SEQUENCE FRC MEDLINE-8815 Arnaout M.A.	"Motecular cloning of the alpha subunit of numan leukocyte adhesion glycoprotein Mol: chromosomal homology to the alpha subunits of integrins."; proc. Natl. Acad. Sci. U.S.A. 85:2776-2780(1988). [3] SEQUENCE FROM N.A. MEDLINE-88257215; PubMed-2454931; Arnaout M.A., Gupta S.K., Pierce M.W., Tenen D.G. "Amino acid sequence of the alpha subunit of human creeptor Mol (complement receptor type 3)."; treeptor Mol (complement receptor type 3).";	[4] SEQUENCE FR MEDLINE=931; Fleming J.C "Structural the alpha-in genomic orgi evolution."	SECULIARY N.A MEDLINE-89098893; PubMed=250 Hickstein D.D., Hickey M.J., Roth G.J., "CDM Sequence for the alph adherence receptor indicate: Proc. Natl. Acad. Sci. U.S., [6]
U U U	RESULT ITAM_HI ID ITAM AC PI PDT 01 DDT 15 DD ITE DDE ITAM GN ITAM	OC OC OX RN RN RA RA	RT RTT RET RE	T T T T Z Z Z Z Z T T T T Z Z Z Z Z T	S	RR RA RY

```
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL;
EMBL;
EMBL;
                                                                                                                                                                EMBL;
EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                      EMBL;
EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                             EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                      EMBL;
EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                                                             EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL;
                                                                                                                        EMBL;
                                                                                                                                         EMBL;
                                                                                                                                                    EMBL;
MEDLINE-98226734; PubMed-9560195;

A MEDLINE-98226734; PubMed-9560195;

A WEDLINE-98226734; PubMed-9560195;

Oxvig C., Springer T.A.;

"Experimental support for a beta-propeller domain in integrin alpha-
"Experimental support for a beta-propeller domain in integrin alpha-
"Experimental support for a beta-propeller domain in integrin alpha-
"Experimental support for a beta-propeller down surface.";

Proc. Natl. Acad. Sci. U.S., P. 95.4870-4875(1998)

- !- FUNCTION: INTEGRIN ALPHA-M/BETA-2 IS IMPLICATED IN VARIOUS

ADMESIVE INTERRACTIONS OF MONOCYTES, MACROPHAGES AND GRANULOCYTES

AS WELL AS IN MEDIATING THE UPTAKE OF COMPLEMENT OF THE ICSB PRACHENT OF THE THEND COMPLEMENT COMPONENT. IT PROBABLY RECOGNIZES THE R-G-D PEPTIDE IN C3B INTEGRIN ALPHA-M/BETA-2 IS ALSO A RECEPTOR FOR FURINGEN, FACTOR X AND ICAM1. IT RECOGNIZES PI AND P2 PEPTIDES

C -!- SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-M

ASSOCIATES WITH BETA-2.

C -!- SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-M

ASSOCIATES WITH BETA-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
SIMILARITY: CONTAINS 1 WHFA domain.
SYMILARITY: CONTAINS 7 WFG-GAP repeats.
DATABASE: NAME=PROW; NOTE=CD guide CD11b entry;
WWW="http://www.ncbi.nlm.nih.gov/prow/cd/cd11b.htm".
                                                                                                                                                                                                                                                                                             X-RAY CRYSTALLOGRAPHY (1.7 ANGSTROMS) OF 148-331.
MEDLINE=5917458; Windhed=7867070;
Lee J.O., Rieu P., Arnaud M.A., Liddington R.;
"Crygtal structure of the A domain from the alpha subunit of integrin
                                                                                                                                                                                                                                                                                                                                                                                             X-RAY CRYSTALLOGRAPHY (2.0 ANGSTROMS) OF 148-334.
MEDINE=5635671; Wubbed=8747460;
Lee J.O., Bankston L.A., Arnaout M.A., Liddington R.C.;
"Two conformations of the integrin A-domain (I-domain): a pathway for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           X-RAY CRYSTALLOGRAPHY (2.7 ANGSTROMS) OF 148-337.

MEDLINE=98362595; PubMed=9687375;

Baldwin E.T., Sarver R.W., Bryant G.L. Jr., Curry K.A.,

Fairbanks M.B., Finzl. B.C., Marlick R.L., Heinrikson R.L.,

Horton N.C., Kelley L.L., Mildner A.M., Moon J.B., Mott J.E.,

Mutchler V.T., Tomich C.S., Watenpaugh K.D., Wiley V.H.;

"Cation binding to the integrin CD11b I domain and activation model
                                                                                                                                                                                             SEQUENCE OF 17-31.

MEDLINE=87076671; PubMed=3539202;

MEDLINE=87076671; PubMed=3539202;

M.W., Remold-O'Donnell E., Todd R.F. III, Arnaout M.A.;

Niterminal sequence of human leukocyte glycoprotein Mol:

conservation across species and homology to platelet IIb/IIIa.";

Biochim. Biophys. Acta 874:368-371(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBCELLULAR LOCATION: Type I membrane protein.
TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN MONOCYTES AND
             MEDLINE=92073318; PubMed=1683702; Shelley C.S., Arnaout M.A.; "The promoter of the CD1b gene directs myeloid-specific and developmentally regulated expression."; Proc. Natl. Acad. Sci. U.S.A. 88:10525-10529(1991).
                                                                                                                   MEDLINE=92144986; PubMed=1346576;
Pahl H.L., Rosmarin A.G., Tenen D.G.;
"Characterization of the myeloid-specific CD11b promoter.";
Blood 79:865-870(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3D-STRUCTURE MODELING OF 17-616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Structure 3:1333-1340(1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Structure 6:923-935(1998).
SEQUENCE OF 1-9 FROM N.A.
                                                                                             SEQUENCE OF 1-9 FROM N.A. TISSUE=Blood;
                                                                                                                                                                                                                                                                                                                                                     CR3 (CD11b/CD18).";
Cell 80:631-638(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GRANULOCYTES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      activation?"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              assessment."
                                                                                                                                                                                                                                                                                  6
```

This SWISS-PROT entry is copyright. It is produced through a collaboration

```
between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRINTS; PRO1185; INTEGRINA.
PRINTS; PR00185; VWPADOMAIN.
SMART; SM00131; Int_alpha; 4.
SMART; SM00137; VWA; 1.
PROSITE; PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PS00344; VWPA; 1.
Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane; Signal; 3D-structure; Repeat; Magnesium; Calcium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GO; GO:0008305; C:integrin complex; TAS.
GO; GO:0004895; F:cell adhesion receptor activity; TAS.
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002035; VWF_A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INTEGRIN ALPHA-M.
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL.
CYTOPLASMIC (POTENTIAL).
FG-GAP 1.
                                                                                                                                                                                                                                                                                                                                     JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOINED.
JOINED.
JOINED.
                                                                                                                                                                                                                                                                                                       JOINED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOINED
                                                                                                                                                                                                                                        JOINED
                                                                                                                                                                                                                                                                        JOINED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pfam; PF01839; FG-GAP; 3.
Pfam; PF00357; integrin A; 1.
Pfam; PF00092; vwa; 1.
                                                                                                              EMBL; J03925; AAA59544.1; -.
EMBL; M18044; AAA59491.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL, S52222, AAB24821.1; JC
EMBL, S52226, AAB24821.1; JG
EMBL, M76724; AAA58401.1;
EMBL, M84477; AAA51960.1; --
PDB; A31108; WHU1B.
PDB; 1A8X; 17-UTN-98.
PDB; 1BHO; 18-NOV-98.
PDB; 1BHO; 18-NOV-98.
PDB; 11DD; 25-NOV-98.
                                                                                                                                            AAB24821.1;
AAB24821.1;
                                                                                                                                                                                                         AAB24821.1;
AAB24821.1;
AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                   AAB24821.1;
AAB24821.1;
AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAB24821.1;
AAB24821.1;
AAB24821.1;
AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB24821.1;
                                                                                                                                                                                            AAB24821.1;
                                                                                                                                                                                                                                                                                                       AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                 AAB24821.1;
                                                                                                                                                                                                                                                       AAB24821.1;
AAB24821.1;
AAB24821.1;
                                                                                                                                                                                                                                                                                                                        AAB24821.1
AAB24821.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Genew; HGNC:6149; ITGAM.
MIM; 120980; -
                                                                                                                                                                                                                                                                                                                                                       AAB24821.1
                                                                                                                                                                                                                                                                                                                                                                                      AAB24821.1
                                                                                                                                                                                                                                                                                                                                                                                                                    AAB24821.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1152
1104
1128
1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16
                                                                                                                                                                                                                                                                                                                                                                                                     AAB24821.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PDB; 1JLM; 11-JAN-97.
PDB; 1M1U; 07-AUG-02.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1105
1129
31
                                                                                                                                                                                                           S52154;
S52155;
S52157;
                                                                                                                                              J04145;
S52227;
                                                                                                                                                                           S52152;
S52153;
                                                                                                                                                                                                                                                       S52159;
S52161;
S52164;
S52165;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S52219;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S52221;
                                                                                                                                                                                                                                                                                                                                                                                      S52174;
                                                                                                                                                                                                                                                                                                                                                                                                                    S52181;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S52213;
                                                                                                                                                                                                                                                                                                                                                                                                                                     552184;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     S52189;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               852212;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                $52216:
                                                                                                                                                                                                                                                                                                                                        S52169;
                                                                                                                                                                                                                                                                                                                                                       $52170;
                                                                                                                                                                                                                                                                                                                                                                        $52173;
                                                                                                                                                                                                                                                                                                                                                                                                     $52180;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
```

QY         1021 VNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF 1080           DD         1020 VNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF 1079           QY         1081 TLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKD 1140           DD         1080 TLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD 1139           QY         1141 MMSEGGPPGAEPQ 1153           DD         1140 MMSEGGPPGAEPQ 1152           DD         1140 MMSEGGPPGAEPQ 1152	PRESULT 2  ITM MOUSE  DI TIAM MOUSE  DI OI-TREA-1991 (Rel. 10, Late sequence update)  DI OI-TREA-1991 (Rel. 10, Late sequence (Rel Marinata)  MAS MARINES-1991 (Rel. 10, Late sequence of the murine Mac-1 alpha chain reveals homology  RT Milebrand factor:  MA M	1 1 1
Ouery Match Best Local Similarity 99.7%; Score 5940.5; DB 1; Length 1152; Best Local Similarity 99.9%; Pred. No. 0; Matches 1152; Conservative 0; Mismatches 0; Indels 1; Gaps 1;  Qy   MALRVLLTALTLCHGFNLDTENAMTFOENARGFGGSVVQLQGSRVVVGAPOEIVAANQR 60    MALRVLLTALTLCHGFNLDTENAMTFOENARGFGGSVVQLQGSRVVVGAPOEIVAANQR 60    MALRVLLTALTLCHGFNLDTENAMTFOENARGFGGSVVQLQGSRVVVGAPOEIVAANQR 60    MALRVLLTALTLCHGFNLDTENAMTFGGSTGGSVVQLQGSRVVVGAPOEIVAANQR 60    Qy   61 GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGSLSLAATTSPPQLLACGPTVHQTCSENTYVK 120    Db   61 GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGSLSLAATTSPPQLLACGPTVHQTCSENTYVK 120	TWHEOL TWHEOL TWHEOL TWHEOL TWHEOL TWHEOL THIN IN I	OY 961 LGGRSLPISIVFLVPVRLNOTVIWDRPOVTFSENLSSTCHTKERLPSHSDFLAELRKAPV 1020 

```
KGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF 1079
                                                     TES, MACROPHAGES AND GRANULOCYTES
TAKE OF COMPLEMENT-COATED PARTICLES.
RECEPTOR FOR THE IC18 FRAGMENT OF
IT PROBABLY RECCONIZES THE R-G-D
M/BETA-2 IS ALSO A RECEPTOR FOR
IT RECCONIZES PI AND P2 PEPTIDES
IA M/BETA-2 PLAY A CRITICAL ROLE IN
MUNE COMPLEX-MEDIATED
SING A NULL MUTATION OF THE ALPHA-M
SAIION AND PHAGACYTOSIS, EVENTS THAT
IN NEUTROPHILS. THESE MICE DEVELOP
                                                                                                                                                                                                                                                                                                                                              pdate)
update)
ace glycoprotein MAC-1 alpha
Leukocyte adhesion receptor MO1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    c-1 alpha chain reveals homology ional domain related to von
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    alpha subunit of the mouse
ar adhesion molecule Mac-1.",
-5648(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a; Vertebrata; Euteleostomi;
nathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 J.;
lac-1 leukocyte adhesion
to leukocyte interferon.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AND A BETA CHAIN. ALPHA-M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 reyer W.J., Gee C.E.,
                                                                                                                                                                                                                                                                                    153 A.A.
```

```
1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               839
                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             899
                                                                                                                                                                     180
                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                            180
                                                                         120
              9
                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ANVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             960 NLGORSLPISLVFLVPVRLNOTVIMDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960 NLGQRSLPVSVVFWIPVQINNVTVWDHPQVIFSQNLSSACHTEQKSPPHSNFRDQLERTP
                                                                                                                                                                                                                                                                                                                                                                                                LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HYYEQTRGGOVSVCPLPRGORARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORSWRL-ACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KRPWFVKPAESSSSEGHGALKSTTWNINHPIFPANSEVTFNVTFDVDSHASFGNKLLK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VVNCSIAVCQRIQCDIPPPGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSV
                                                                          GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                          241 ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                     ICAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DLIVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK
                               KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
              MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                        GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                          61
                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                   301
                                                                             61
                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                          셤
                                                                                                                                                                  g
                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                             ठे
                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                            ઠે
                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ä
                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              151; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INTEGRIN ALPHA-M.
EXTRACELLULAR (POTENTIAL).
POTENTIAL.
CYTOPLASMIC (POTENTIAL).
FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GECNAC
GECNAC
GECNAC
GECNAC
GECNAC
GECNAC
GECNAC
GECNAC
GECNAC
GECNAC
GECNAC
GECNAC
GECNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 178DB988AECB0343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5; DB 1; 1
6e-300;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4-LINKED (GLCNAC.
1-LINKED (GLCNAC.
1-LINKED (GLCNAC.
1-LINKED (GLCNAC.
1-LINKED (GLCNAC.
1-LINKED (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GFFKR MOTIF.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

N-LINKED (GLCN.

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
VWFA domain.
FG-GAP repeats
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 4545;
Pred. No. 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
POTENTIAL.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             POTENTIAL
                                                                                                                                                                     LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               994
1022
1045
1051
1076
AA; 127480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              76.3%;
ilarity 74.5%;
Conservative 141
                                                                                                                                                                                                                                                                                                                                                                                                                                Integrin, Cell adhesion, Signal; Calcium; Repeat. Signal; Calcium; Repeat. Signal; Calcium; Repeat. Signal; Calcium; Repeat. 17 1153 DOMAIN 17 1153 DOMAIN 1130 1153 REPEAT 31 400 REPEAT 401 452 REPEAT 401 452 REPEAT 401 452 REPEAT 580 632 CA_BIND 529 600 SITE 1132 1136 DISULFID 529 600 SITE CARBOHYD 66 473 CARBOHYD 58 68 CARBOHYD 59 1023 DISULFID 59 1023 DISULFID 59 50 CARBOHYD 772 772 772 CARBOHYD 86 68 CARBOHYD 773 772 773 CARBOHYD 861 861 861 CARBOHYD 861 861 CARBOHYD 997 907 907
SIMILARITY: Contains SIMILARITY: Contains
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          123
7111
776
1023
1033
86
391
696
734
773
734
901
9801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
nes 860; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 941
980
994
1022
1045
1051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
```

```
M81695;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CA BIND
CA BIND
CA BIND
SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REPEAT
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REPEAT
 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=87167596, PubMed=3549901;

MEDLINE=87167596, PubMed=3549901;

MILLER L.J., Wiebeb M., Springer T.A.;

MILLER L.J., Wiebeb M., Springer T.A.;

MILLER L.J., Wiebeb M., Springer T.A.;

MILLER L.J., Wiebe M., Springer T.A.;

MILLER L.J., Wieber M., Submin Mac-1

and p150,95 leukocyte adhesion proteins.";

J. J. Immunol. 138.1381.23811.28311.897).

L. J. Immunol. 138.1381.23811.897).

C. I. FUNCTION: INTEGRIN ALPHA-NETA.2 IS A RECEPTOR FOR FIBRINOGEN. IT RECOGNIZES THE SEQUENCE G-P-R IN FIBRINOGEN. IT IS ESPECIALLY

IMPORTANT IN MONOCYTE ADHESION AND CHEMOTAXIS.

C. I. SUBGLILLIAR LOCATION: TYPE I membrane protein.

C. I. SUBGLILLIAR LOCATION: TYPE I membrane protein.

C. I. SUBGLILLIAR LOCATION: TYPE I membrane protein.

C. CRANULOCYTES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
             FTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYK 1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
SIMILARITY: CORLEAINS 1 VFG domain.
SIMILARITY: CORLEAINS 7 VFG CAP repeats
DATABASE: NAME=PROW; NOTE=CD guide CD11c entry;
WWW*"http://www.ncbi.nlm.nih.gov/prow/cd/cd11c.htm".
                                                                                                                                                                                                                                                                                                         MEDLINE-8816645; PubMed=33,7687; Corbinate R.S., Springer T.A.; Corbin A.L., Miller L.J., O'Connor K., Larson R.S., Springer T.A.; Corbin Complete primary structure of the alpha subunit of a leukocyte adhesion glycoprotein, p150,95."; EMBO J. 6:4023-4028(1987).
                                                                                                                                                                 01-FEB-1991 (Rel. 17, Created)
01-FEB-1991 (Rel. 17, Last dequence update)
15-SEP-2003 (Rel. 42, Last denotation update)
Integrin alpha-X precursor (Leukocyte adhesion glycoprotein p150,95
alpha chain) (Leukocyte adhesion receptor p150,95) (CD11c) (Leu MS).
Homo papiens (Human).
                                                                                                                                                                                                                                                       Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
Mel TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
MEDILINE=90153906; PubMed=213426;
Gorbi A.L., Garcia-Aguilar J., Springer T.A.;
"Genomic structure of an integrin alpha subunit, the leukocyte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Corbi A.L., Garcia-Aguilar J., Springer T.A.;
J. Biol. Chem. 265:12750-12751(1990).
                                                                                                                                          PRT; 1163 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                         p150,95 molecule.";
J. Biol. Chem. 265:2782-2788(1990).
                                                   DMMSEGGPPGAEPO 1158
                                                                          1140 DMMNEAAPQDAPPQ 1153
                                                                                                                                          STANDARD;
                                                                                                                                          HUMAN
1080
                                                   1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ERRATUM
                                                                                                                 RESULT 3
ITAX HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ÷
                                                                                                                                                         g
                                                 ò
```

```
5 VLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                        R GO; GO:0008305; C:integrin complex; TAS.

R GO; GO:000895; F:cell adhesion receptor activity; TAS.

R GO; GO:000895; F:cell adhesion receptor activity; TAS.

R GO; GO:0007397; P:histogenesis and organogenesis; TAS.

R InterPro; IPR000413; Integrin_alpha.

R InterPro; IPR000515; VWF.

R Pfam; PF00185; INTEGRINA.

R PRINTS; PR00185; INTEGRINA.

R PRINTS; PR00185; INTEGRINA.

R SMART; SM00191; Int_alpha; 5.

R SMART; SM00191; Int_alpha; 5.

R PROSITE; PS00241; VWFA. 1.

R PROSITE; PS00244; VWFA. 1.

R PROSITE; PS0244; VWFA. 1.

R Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 58.8%; Score 3503; DB 1; Length 1163; Best Local Similarity 61.3%; Pred. No. 2.7e-229; Matches 700; Conservative 138; Mismatches 297; Indels 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6C4E19CC3F62A473 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INTEGRIN ALPHA-X.
EXTRACELLULAR (POTENTIAL)
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Signal; | Magnesium; | Calcium; | Repeat; | 3D-BFructure. | 1 | 19 | SIGNAL | 1 | 19 | SIGNAL | 1 | 19 | SIGNAL | 1 | 10 | SIGNAL | 10 | 1163 | EXTRACELLULAR (POTENTRANSMEM | 1108 | 1128 | POTENTIAL. | POTENTIAL | POTENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -> A (IN REF. 2)
-> D (IN REF. 2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GFFKR MOTIF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
POTENTIAL.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POTENTIAL
CAA68283.1; -. -; NOT_ANNOTATED_CDS.
                                                                          AAA51620.1; ALT SEQ.
AAA51620.1; JOINED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VWFA
                                                                                                         EMBL; M29482; AAA51620.1; JOINED.
EMBL; M29483; AAA51620.1; JOINED.
EMBL; M29484; AAA51620.1; JOINED.
EMBL; M29485; AAA51620.1; JOINED.
EMBL; M29486; AAA51620.1; JOINED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    127885 MW;
                                                                                                                                                                                                                                                                                                                                       PDB; 1N3Y; 18-FEB-03.
Genew; HGNC:6152; ITGAX.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   126
712
712
777
1022
1032
61
89
392
697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             756 75
1163 AA;
                                                                                                                                                                                                                                                                                                    PIR; A36584; RWHU1C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               402
                                   M29165; -
M29487; I
                                                                                                                                                                                                                                                                                                                                                                                                                     MIM; 151510;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
```

1143

셤

```
1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1023
                                                                                                                                                          365
                                                                                                                                                                                                                                   485
                                                                                                                                                                                                                                                                                                                                                                                                          784
                                                                                                                                                                                                                                                                                                                                                                                                                                               844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          962
                                           185
                                                                                 245
                                                                                                  304
                                                                                                                    305
                                                                                                                                       364
                                                                                                                                                                            424
                                                                                                                                                                                             425
                                                                                                                                                                                                                 484
                                                                                                                                                                                                                                                       544
                                                                                                                                                                                                                                                                        544
                                                                                                                                                                                                                                                                                           604
                                                                                                                                                                                                                                                                                                             604
                                                                                                                                                                                                                                                                                                                                664
                                                                                                                                                                                                                                                                                                                                                 664
                                                                                                                                                                                                                                                                                                                                                                    724
                                                                                                                                                                                                                                                                                                                                                                                      724
                                                                                                                                                                                                                                                                                                                                                                                                                             784
      127
                         184
                                                              244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QTRGGQVSVCPLPRGWR-RWWCDAVLYGEQGHPWGRFGAALTVLGDVNGDKLTDVVIGAP
                                                                                                                                                                                                                                                                                                     DPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSIT
                                                                                                                                                                                                                                                                                                                                                                                                                     845 HLTCDSAPVG--SQGTWSTSCRINHLIFRGGAQITFLATFDVSPKAVLGDRLLLTANVSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ENNTPRISKTTFQLELPVKYAVYTVVSSHEQFTKYLNFSESEEKESHVAMHRYQVNNLGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMS
SKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGP
                                                                                                                                                  GAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRD
                                                                                                                                                                                                                                                                                                                                          RLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIE
                                                                                                                                                                                                                                                                                                                                                                                                                                              FSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                FSFPGLKSLLVGSNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEGOKOGOLRSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ENNMPRINKTEFOLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIAVCORIOCDIPFFGIOEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLL
                         LFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSK
                                                              TLFSLMQYSEEPRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNG
                                                                                                   ARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIA
                                                                                                                                                                            LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAP
                                                                                                                                                                                                                  RYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE
                                                                                                                                                                                                                                                       QTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                           GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RLACESASSTEVSGALKST
                                                                                                                                                                                                                                                                                                                                                                    999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1083
                         125
                                                              185
                                                                                                   245
                                                                                                                                       305
                                                                                                                                                           306
                                                                                                                                                                            365
                                                                                                                                                                                               366
                                                                                                                                                                                                                  425
                                                                                                                                                                                                                                    426
                                                                                                                                                                                                                                                       485
                                                                                                                                                                                                                                                                        486
                                                                                                                                                                                                                                                                                           545
                                                                                                                                                                                                                                                                                                              545
                                                                                                                                                                                                                                                                                                                                605
                                                                                                                                                                                                                                                                                                                                                  605
                                                                                                                                                                                                                                                                                                                                                                                       965
                                                                                                                                                                                                                                                                                                                                                                                                          725
                                                                                                                                                                                                                                                                                                                                                                                                                             725
                                                                                                                                                                                                                                                                                                                                                                                                                                              785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 963
                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                       8 % B
                                                                                                                                                      8 8 8
                                                                                                                                                                                                                             9
9
9
                                                                                                                                                                                                                                                                                        g &
                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                           음 승 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
     셤
                                                                             P
                                                                                                 ò
                                                                                                               셤
                                                                                                                                 õ
                                                                                                                                                                                                          õ
                        ò
                                         유
                                                            ò
```

```
ASSOCIATES WITH BETA-2.
SUBCELLULAR LOCATION: Type I membrane protein.
TISSUE SPECIFICITY: EXPRESSED MODERATELY ON MYELOMONOCYTIC CELL
LINES AND SUBSETS OF PERIPHERAL BLOOD LEUKOCYTES AND STRONGLY ON
TISSUE-SPECIALIZED CELLS, INCLUDING MACROPHAGES FOAM CELLS WITHIN
ATHEROSCLEROTIC PLAQUES, AND ON SPLENIC RED FULP MACROPHAGES.
DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A WHFA DOMAIN. INTEGRINS
WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene-encoding a human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                             the leukocyte integrin
                                                                                                                                                                                                                                                                                                            beta 2, binds preferentially to ICAM-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BLOOD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=99059842; PubMed=9841932; Grayson M.H., Van der Vieren M., Sterbinsky S.A., Michael Gallatin Hoffman P.A., Staunton D.E., Bochner B.S.; "alphadbeta2 integrin is expressed on human eosinophils and functio as an alternative ligand for vascular cell adhesion molecule 1 (VCAM-1).";
                                                                                                                                                                                                                                                                          St John T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=99370002; PubMed=10438935;
Van der Vieren M., Crowe D.T., Hoekstra D., Vazeux R., Hoffman P.A Grayson M.H., Bochner B.S., Gallatin W.M., Staunton D.E.;
"The leukocyte integrin alpha D beta 2 binds VCAM-1: evidence for binding interface between I domain and VCAM-1.";
J. Immunol. 163:1984-1990(1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FUNCTION: INTEGRIN ALPHA-D/BETA-2 IS A RECEPTOR FOR ICAM3 AND VCAMI. MAY PLAY A ROLE IN THE ATHEROSCLEROTIC PROCESS SUCH AS CLEARING LIPOPROTEINS FROM PLAQUES AND IN PHAGOCYTOSIS OF BLOC BORNE PATHGENS, PARTICULATE MATTER, AND SENESCENT ERYTHROCYTE
                                                                                                                                             Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-D
                                                                                          (CD11d) (ADB2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    910-1125
                                                                                                                                                                                                                  SEQUENCE FROM N.A.
TISSUE=Spleen;
MEDLINE=96111956; PubMed=8777714;
Wan der Vieren M., Le Trong H., Wood C.L., Moore P.F.,
Staunton D.E., Gallatin W.M.;
                                                                                                                                             Craniata; Vertebrata; E
Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AND
                                                                                          â
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 467-537; 571-602; 633-666; 788-834 AN MEDLINE=96257236; PubMed=8666289; Wong D.A., Davis E.M., LeBeau M., Springer T.A.; "Cloning and chromosomal localization of a novel beta 2-integrin alpha subunit."; Gene 171:291-294(1996).
                                                                                        (Leukointegrin alpha
                                                                                                                                                                                                                                                                                                                                                                                                                        Noti J.D., Johnson A.K., Dillon J.D.;
"Structural and functional characterization of
many of Besential role of Spl and Sp3.";
J. Biol. Chem. 275:8959-8969(2000).
             013349; Q15575; Q15576;
16-0CT-2010 (Rel. 40, Created)
16-0CT-2011 (Rel. 40, Last Sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Ş
                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 1-235 FROM N.A.
MEDLINE=20187620; PubMed=10722744;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Exp. Med. 188:2187-2191(1998)
                                                                                                                                                                                                                                                                                                            novel leukointegrin, alpha d
                                                                                                                          Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                        integrin alpha-D precursor
STANDARD;
                                                                                                                                                                                                                                                                                                                                                   [mmunity 3:683-690(1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INTERACTION WITH VCAM1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INTERACTION WITH VCAMI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FROM THE BLOOD
                                                                                                                                                                                  NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUBUNIT:
ITAD HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                [3]
```

65

304 304 424 424 484 484 544 544 604 604 664 664 724 722 782

963

```
LFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSK 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGP 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSIT 784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ENNMPRINKTEFQLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SAPPQDHVFKVDNFAALGSIQKQLQEKIYAVEGTQSRASSSFQHEMSQEGFSTALTMDGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GEQENRGAVYLFHGASESGISPSHSQRIASSQLSPRLQYFGQALSGGODLTQDGLMDLAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RLREGOIOSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIE
                                                                                                                                                                                                                                                                              VLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLY
                                                                                                                                                                                                                                                                                                                          6 VLLLSVLASYHGFNLDVEEPTIFQEDAGGFGGSVVQFGGSRLVVGAPLEVVAANQTGRLY
                                                                                                                                                                                                                                                                                                                                                                           QCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNG
                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                             .
.
       .) (POTENTIAL)
                                                                                                                                                                               Length 1162;
  N-LINKED (GLCNAC. ..) (POTEN' MISSING (IN REF. 2).
GHPW -> ATP (IN REF. 2).
L -> V (IN REF. 2).
V -> A (IN REF. 2).
S W*, F296A1A35455D77D CRC64;
                                                                                                                                                                          Query Match 58.0%; Score 3455; DB 1; Length 1 Best Local Similarity 59.9%; Pred. No. 4.9e-226; Matches 684; Conservative 162; Mismatches 287; Indels
                                                                                                                              126885
     1046
500
518
825
984
                                                                                                                                Ā
     1046
500
515
825
984
1162
  CARBOHYD
CONFLICT
CONFLICT
CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              126
                                                                                                                                                                                                                                                                                                                                                                                                                            99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       905
       84444
                                                                                                                                                                                                                                                                                                                          음
                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GO; GO:0008305; C:integrin complex; TAS.
GO; GO:0004895; F:cell adhesion receptor activity; TAS.
GO; GO:0016337; P:cell-cell adhesion; NAS.
GO; GO:000160; P:cell-matrix adhesion; NAS.
GO; GO:000165; P:cell-matrix adhesion; NAS.
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR000413; Integrin_alpha.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   POTENTIAL.

FG-GAP 1.

FG-GAP 2.

WFA.

FG-GAP 3.

FG-GAP 3.

FG-GAP 4.

FG-GAP 5.

FG-GAP 6.

FG-GAP 6.

FG-GAP 6.

FG-GAP 7.

FG-GAP 7.

FG-GAP 7.

FG-GAP 8.

FG-GAP 8.

FG-GAP 8.

FG-GAP 1.

FG-GAP 9.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 2.

FG-GAP 3.

FG-GAP 6.

FG-GAP 6.

FG-GAP 6.

FG-GAP 7.

FG-GAP 6.

FG-GAP 6.

FG-GAP 7.

FG-GAP 6.

FG-GAP 7.

FG-GAP 7.

FG-GAP 6.

FG-GAP 7.

FG-GAP 7.

FG-GAP 7.

FG-GAP 6.

FG-GAP 7.

FG-GAP 7.

FG-GAP 7.

FG-GAP 1.

FG-G
-!- SIMILARITY: Contains 1 VWFA domain.
-!- SIMILARITY: Contains 7 FG-GAP repeats.
                                                                                                                                                                                                                                                                                              EMBL; U37028; AAB38547.1;
EMBL; U40274; AAB60634.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               538
601
1131
744
1124
1124
1028
1028
1028
873
873
99
391
691
733
957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
CARBOHYD
CAR
```

us-09-902-481b-1.rsp

```
Mol. Biol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Genew;
MIM; 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REPEAT
DOMAIN
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                   EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                     PDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PDB;
 RDLAISINFWVPVLLNGVAVWDVVMBAPSQSL--PCVSBRKPPQHSDFLTQISRSPMLDC 1018
                                                                                  1019 SIADCLQFRCDVPSFSVQEELDFTLKGNLSFGWVRFTLQKKVLVVSVAEITFDTSVYSQL 1078
                                                                                                                              RSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNC 1023
                                                                      SIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLL 1083
                                                                                                                  PGQGAFVRSQTETKVEFFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMS 1143
 ENNKASSSKATFOLELPVKYAVYTMISRQEESTKYPNFATSDEKKMKEAEHRYRVNNLSQ 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       X-RAY CRYSTALLOGRAPHY (2.6 ANGSTROMS) OF 153-334.
MEDLYNE=99425288; PubMed=10493852;
Kallen J., Welzenbach K., Rangep P., Geyl D., Kriwacki R., Legge G.,
Cottens S., Welz-Schmidt G., Hommel U.;
"Structural basis for LFA-i inhibition upon lovastatin binding to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SECUENCE FROM N.A. (ISOFORM 2).

MEDLINE=99425270; PubMed=10493829;
Loftus B.J., Kim U.-J., Sneddon V.P., Kalush F., Brandon R.,
Fuhrmann J., Mason T., Crosby M.L., Barnstead M., Cronin L.,
Deslattes Mays A., Cao Y., Xu R.X., Kang H.-L., Mitchell S.,
Eichler E.E., Harris P.C., Venter J.C., Adams M.D.;
"Genome duplications and other features in 12 Mb of DNA sequence from human chromosome 16p and 16q";
Genomics 60:295-308(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=89139587; PubMed=2537322;
Largon R.S., Corbi A.L., Berman L., Springer T.;
"Primary structure of the leukocyte function-associated molecule-1
alpha subunit: an integrin with an embedded domain defining a protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          X-RAY CRYSTALLOGRAPHY (1.8 ANGSTROMS) OF 153-335, AND REVISION TO 214 MEDLINE=96036067; PubMed=7479767;
                                                                                                                                                                                                                                                       P20701; 043746;
01-FBE-1991 (Rel. 17, Created)
01-NOY-1995 (Rel. 32, Last sequence update)
15-5EP-2003 (Rel. 42, Last annotation update)
Integrin alpha-L precursor (Leukocyte adhesion glycoprotein LFA-1
alpha chain) (Leukocyte function associated molecule 1, alpha chain)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Qu A., Leahy D.J.; "Crystal structure of the I-domain from the CD11a/CD18 (LFA-1, alpha L beta 2) integrin.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cation in the structure of the I domain
                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (Human).
Eukäryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. (ISOFORM 1), AND PARTIAL SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Proc. Natl. Acad. Sci. U.S.A. 92:10277-10281(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          X-RAY CRYSTALLOGRAPHY (2.0 ANGSTROMS) OF 153-335
                                                                                                                                                                                                                                               PRT; 1170 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=96398682; PubMed=8805579;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cerfamily.";
Cell Biol. 108:703-712(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Qu A., Leahy D.J.;
"The role of the divalent cation from the CD11a/CD18 integrin.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Structure 4:931-942(1996)
                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CD11a I-dómain.";
                                                                                                                                                               E 1144
                                                                                                                                                                                      D 1139
                                                                                                                                                                                                                                                                                                                                           ITGAL OR CD11A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       superfamily.
                                                                                                                                                                                                                                               ITAL HUMAN
                                               961
                                                                                                                  1084
                                                                                                                                                                1144
                                                                                                                                                                                      1139
                                                                      1024
                                                                                                                                                                                                                                                           g
                                                                                                                                     g
                                                                                                                                                               ò
                                           g
                                                                    ò
                                                                                                                 ò
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                            FUNCTION: INTEGRIN ALPHA-L/BETA-2 IS A RECEPTOR FOR ICAMI, ICAM2, ICAM3 AND ICAM4. IT IS INVOLVED IN A VARIETY OF IMMUNE PHENOMENA INCLUDING LEUKOCYTE-ENDOTHELIAL CELL INTERACTION, CYTOTOXIC T-CELL MEDIATED KILLING, AND ANTIBODY DEPENDENT KILLING BY GRANULOCYTES
                                                                                                                            SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE; PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PSS0244; VWFA; 1.
Integrin; Cell adhasion; Receptor; Glycoprotein; Transmembrane;
Signal; 3D-structure; Magnesium; Calcium; Repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INTEGRIN ALPHA-L.
EXTRACELLULAR (POTENTIAL)
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CYTOPLASMIC (POTENTIAL)
                                                                                                                                              ASSOCIATES WITH BETA-2.
-!- SUBCELLULAR LOCATION: Type I membrane protein.
-!- ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                            Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                              IsoId=P20701-2; Sequence=VSP_002738;
                                                                                                                                                                                                                                                      IsoId=P20701-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GO; GO:0008305; C:integrin complex; TAS. GO; GO:0006928; P:cell motility; TAS. InterPro; IPRO00413; Integrin_alpha. InterPro; IPRO02035; VWF A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FG-GAP 1.
FG-GAP 2.
VWFA.
FG-GAP 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pfam; PF01839; FG-GAP; 3.
Pfam; PF00352; integrin_A; 1.
Pfam; PF00092; vwa; 1.
PRINTS; PR01185; INTEGRINA.
PRINTS; PR00433; VWFADOMAIN.
SWART; SM00131; Int_alpha; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AC002310; AAC31672.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; Y00796; CAA68747.1; -.
292:1-9(1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HGNC: 6148; ITGAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1088
1112
1170
91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-DEC-96.
07-DEC-96.
07-AUG-00.
03-FEB-00.
28-JAN-03.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1ZOP; 07-DEC-96.

1ZOP; 07-AUG-00.

1DGQ; 03-FEB-00.

1MJN; 28-JAN-03.

1MQ9; 14-JAN-03.

1MQ9; 14-JAN-03.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-JAN-03.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alternative splicing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1LFA; 29-JAN-96.
1ZON; 07-DEC-96.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  803308; 803308
                                                                                                      AND MONOCYTES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26
1089
1113
42
92
170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1200;
                                                                                                                                                                                                                                  Name=1
                                                                                                                                                                                                                                                                             Name=2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TRANSMEM
DOMAIN
REPEAT
```

64GNSTGSLYQCQSGTGHCLPVTLR-GSNYTSKYLGMTLATDPTDGSILACDPGLSRTCD 120 115 ENTYVKGLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMK 170 116		291 FRSEKSRQELNTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEM 350     .   .		467 DSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGOPWGRFGAA 524	585 GQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVV 644  [11   1   1   1   1   1   1   1   1   1	QVLGLTQTCETLKLQLPNCIEDPVSPIVLRINFSLVGTPLSAFGNLRPVL	SYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGALKSTSCSINHPI	MVVTSHGVSTKYLNFTASENTSRVMOHQYQVSNLGQRSLP-ISLVPLYPURLNQTVI  ::	1040 IQEENATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSQTETKVE 1099  ::
8 8 8 8	6 6 6	\$ 8 \$	g . 5 g	<u>ኞ 8</u> ኞ 8	3 8 3 6	6 6 6 6	3 6 8 6	6 6 6 6	8 6 8 6
FG-GAP 4. FG-GAP 5. FG-GAP 6. FG-GAP 7. POTENTIAL. POTENTIAL.	GFFKR MOTIF. BY SIMILARITY.	BY SIMILARITY.  N-LINKED (GLCNAC) (POTENTIAL).   N-LINKED (GLCNAC ) (POTENTIAL).	N-LINKED (GLCNAC) (POTENTIAL). Q -> GGVHGLVEMPGYSKQILCRPAGDAEHTVGAQEGELPC PWGVSEARENINRAGPCR (in isoform 2). /FIId=VSP 002738. R -> W (IN REF. 1 AND 2). Y -> I (IN REF. 2).				9 MW; 39A7AF92EF286FC0 CRC64; Score 1563; DB 1; Length 1170; Pred. No. 9.6e-98; 210; Mismatches 464; Indels 110; Gaps 38;	LLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEI 54	
516 6316 6316 633 633 633	1119 80 129 707 777 861	1052 1052 89 188 649	730 862 885 897 1060	1071 954 214 660 162	164 185 198 206 213	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	22222 2222 2222 2022 2022 2022	314 318 328 330 ; 12881 26.2% vative	HGF       SGFFFFAPA
5330 5330 5330 5330	1115 73 111 653 771 845	1021 0221 85 188 649 670	730 862 885 897 1060	1071 954 214 660 155	164 165 191 191 202 7	22222222222222222222222222222222222222	274 288 298 3008	~ 건	LLLTALTLCHGF   :
REPEAT REPEAT REPEAT REPEAT CA_BIND CA_BIND CA_BIND	SITE DISULFID DISULFID DISULFID DISULFID DISULFID	DISULFID CARBOHYD CARBOHYD CARBOHYD CARBOHYD CARBOHYD	CARBOHYD CARBOHYD CARBOHYD CARBOHYD CARBOHYD	CARBOHYD VARSPLIC CONFLICT CONFLICT STRAND	STRAND TURN - HELIX TURN STRAND STRAND HELIX	TURN STRAND HELIX TURN HELIX TURN TURN STRAND	HELLIX TURN STRAND HELLIX HELLIX TURN HELLIX	C C C C C C C C C C C C C C C C C C C	
FT FT FT FT	FT FT FT FT		FT F	FF		77777777777777777777777777777777777777		SETTER S SOUND	ò a ò

```
345
                                                                                                                                                                                                                                             DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                       CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                    DOMAIN
TRANSMEM
DOMAIN
REPEAT
                                                                                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                              DISULFID
                                                                                                                                                                                                                                                                                                                            DISULFID
                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                             CA BIND
CA BIND
CA BIND
SITE
                                                                                                                                                                                                                                 DISULFID
                                                                                                                                          REPEAT
REPEAT
REPEAT
                                                                                                 DOMAIN
                                                                                                                            REPEAT
                                                                                        REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its mose by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                       MEDLINE=85188276; PubMed=3897182;
Springer T.A., Teplow D.B., Dreyer W.J.;
Springer T.A., Teplow D.B., Dreyer W.J.;
Springer T.A., Teplow D.B., Dreyer W.J.;
Squence howlology of the µFA-1 and Mac-1 leukocyte adhesion
glycoproteins and unexpected relation to leukocyte interferon.";
Mature 314:540-542(1985).
-- FUNCTION: UNTEGRIN ALPHA-L/BETA-2 IS A RECEPTOR FOR ICAM1, ICAM2,
INCLUDING LEUKOCYTE-ENPOTHELIAL CELL INTERACTION, CYTOTOXIC T-CELL
MEDIATED KILLING, AND AMTIBODY DEPENDENT KILLING BY GRANULOCYTES
AND MONOCYTES. MICE EXPRESSING A NULL MUTATION OF THE ALPHA-L
SUBUNIT GENE DEMONSTRATE IMPAIRED TUMOR REJECTION AND IMPAIRED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LEUCOCYTES RECRUITMENT:
SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-L
ASSOCIATES WITH BETA-2.
SUBCELLULAR LOCATION: Type I membrane protein.
TISSUE SPECIFICITY: LEUKOCYTES.
DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERFO PROTEASE CLEAVAGE.
SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
SIMILARITY: Contains I VWFA domain.
SIMILARITY: Contains 7 FG-GAP repeats.
                                                           01-MAR-1992 (Rel. 21, Created)
01-MAR-1992 (Rel. 21, Last sequence update)
28-FBB-2003 (Rel. 41, Last annotation update)
Integrin alpha-L precursor (Leukocyte adhesion glycoprotein LFA-1 alpha chain) (Leukocyte function associated molecule 1, alpha chain)
(CD11a)
                                                                                                                                                            Mus musculus (Mouse).

Eukaryota, Metazoa; Chordala; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                             MEDLINE=91268576; PubMed=2051027;
Kaufmann Y., Tseng E., Springer T.A.;
Cloning of the murine lymphocyte function-associated molecule-1
alpha-subunit and its expression in COS cells.";
J. Immunol. 147:369-374(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS50234; WWPA; 1.
Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane;
Signal; Magnesium; Calcium;
                                                    1163 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HSSP, P20701; 1LFA.

MGD; MGI:96606; Itgal.
InterPro: IPR000413; Integrin_alpha.
InterPro: IPR002035; VWF A
Pfam; PF001839; PG-GAP; 3
Pfam; PF001839; PG-GAP; 3
Pfam; PF00185; integrin A; 1.
PRINTS; PR01185; INTEGRINA.
SWART; SM00191; Int_alpha; 5:
SWART; SM00327; VWA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; M60778; AAA39426.1;
PIR; I56126; I56126.
                                                    STANDARD;
                                                                                                                                                                                                                                                                                                                (2)
SEQUENCE OF 24-42.
                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                         TGAL OR LFA-1.
                                                ITAL MOUSE
P24063;
```

```
38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         E---GDNTGGLYHCRISSEFCQPVSLH-GSNHTSKYLGMTLATDAAKGSLLACDFGLSRT 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              113 CSENTYVKGLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEF 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            232 RKVVRELFNITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREG------VIRYV 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          236 NYVVAHVFKEESGARPDATKVLVIITDG------EASDKGNISAAHDITRYI 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EIVAANQRGSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQT 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SFEHEMSQEGFSAAITSNGPLLSTVGSYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAY 403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MSFRIAGPRILLIGLQLFAKAWSYNLDTRPTQSFLAQAGRHFGYQVLQIEDG-VVVGAPG 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           285 IGVGDAFRSEKSROELNTIASKPPRDHVFQVNNFEALKTIQNOLREKIFAIEGTQTGSSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MALRV----LLLTALTL---CHGFNLDTENAMTFQENA-RGFGQSVVQLQGSRVVVGAPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              173 VSTVMEQLKKSKTLFSLMQYSEEFRIHFTFKEF-QNNPNPRSLVKPITQLLGRTHTATGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 26.0%; Score 1549; DB 1; Length 1163; Best Local Similarity 34.2%; Pred. No. 8.4e-97; Matches 409; Conservative 216; Mismatches 464; Indels 106; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>::</u>
::
                                                                                                                                                                                                                                                                                                                                  (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                             (POTENTIAL)
                                                                                                                                                                                                                                                                                                                        POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL (POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ::
::
::
                     EXTRACELLULAR (POTENTIAL).
                                  POTENTIAL.
CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               128343 MW; A7A3078489E8232F
                                                                                                                                                                                                                                                                                                 (GLCNAC.
                                                                                                                                                                                                                                                                                                                                  (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                          (GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                        (GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GLCNAC.
                                                                                                                                                                                                                                                                                                                        (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                             (GLCNAC
           INTEGRIN ALPHA-L
                                                                                                                                                                                                                                                                                                                                                                                                                                            (GLCNAC
                                                                                                                                                                                                BY SINILARITY.
BY SINILARITY.
BY SINILARITY.
BY SINILARITY.
BY SINILARITY.
BY SINILARITY.
BY SINILARITY.
BY SINILARITY.
BY SINILARITY.
BY SINILARITY.
N-LINKED (GLCN)
N-LINKED (GLCN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GFFKR MOTIF
                                                                                                                                         FG-GAP 7.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                          N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                 POTENTIAL
                                                                                                                                                                             POTENTIAL
                                                                                                                                                                                                                                                                                                                                  N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-LINKED
                                                                                           FG-GAP
                                                                                                                  FG-GAP
FG-GAP
                                                          FG-GAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ::
=
                                                                                                    23
1163
1084
1108
1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1056
                                                                                334
                                                                                                                                                                                                                                                                                                                                                                                                                                                       927 92
1056 109
1163 AA;
```

```
THE THE TELETITE THE TELETITE THE WAS BRANDED 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q----VTFSENLSS----TCHTKE-RLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFF 1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1022 --RWEILIQVTGTVELSKEIKAS-STLSLCSSLSVSFNSSKHFHLYGSKA-SEAQVLVKV 1077
                                                                                                                                                               518
                                                                                                                                                                                                                                                 575
                                                                                                                                                                                                                                                                                          640
                                                                                                                                                                                                                                                                                                                                   635
                                                                                                                                                                                                                                                                                                                                                                          669
                                                                                                                                                                                                                                                                                                                                                                                                                   693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SPIFKAGGEVSLQVMFNTLLLNSSWEDFVELNGTVHCENENSSLQEDNSAATHIPVLYPVN 919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                987
                                                                                  461
                                                                                                                                                                                                                                                                                                                                                                                                                                                            RROTOVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLV---GTPLSAFGN-LRPVLAE 755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGAL-KSTSCSIN 868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPVRLNQTVIWDRP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | : | :: | | | | : | : | | | : | : | | | SGNTSITP-DKSCLDFHFHFPICIQDLISPINVSLNFSLLEEEGTPRDQKGRAMQPILRP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SGEDAYWVRLDLDFPRGLSFRKVEMLO---PHSRMPVSCEEL--TEGSSLLTKTLKCNVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSEN-NMPRTNKTEFQLELPVKYAVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         920 ILTKEQENSTLYISFTPKGPKTQQVQHVXQV----RIQPSAYDHNMPT-LEALVGVPRP
                                                                                                                                                  636 YSAREEQKHĞVKLKACPRİKPLTPQ--FQGRLLANLSYTLQLDGHRMRSRGLFPDGSHEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              756 DAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGGP-----REFNVTVTVRN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIHTV-TKEIPFEKNCGEDKKCEANLTLSSPARS-----GPLRLMSSASLAVEWTLSN
SFNMELSSSGISADLSKGHAVVGAVGAKDWAGGFLDLREDLQGATFVGQEPLTSDVRGGY
                                                                               LGYTVAWMTSRSSRPLLAAGAPRYQHVGQVLLFQAPEAGGRWNQTQKIEGTQ1GSYFGGE
                                                                                                                                                                                                        FGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPR
                                                                                                                                                                                                                                                                                          LQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECN
                                                                                                                                                                                                                                                                                                                                                                            DQVVKGKEAG-EVRVCLHVQKSTRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GIQEEFNATLKGNLSFDMY1KTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1078 DLIHEKEMLHVYVLSGIGGLVLLFLIFLALYKVGFFKRNLKEKMEADGGVPNGSP 1132
                                           LGYAAA-IILRNRVQSLVLGAPRYQHIGLVAMFR--QNTGMWESNANVKGTQIGAYFGAS
                                                                                                                        LCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMM-SEGGPPGAEP 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus (Mouse).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Parker C.M., Brenner M.B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     annotation update)
(Integrin alpha M290)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1167 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN=AKR;
MEDLINE=95187992; PubMed=7862170;
Smith T.J., Ducharme L.A., shaw S.K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last seq
28-FEB-2003 (Rel. 41, Last anno
Integrin alpha-E precursor (Int
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ITAE MOUSE
Q60677;
                                                                                                                                                                                                                                                 519
                                                                                                                                                                 462
                                                                                                                                                                                                                                                                                                                                                                            641
                                                                                                                                                                                                                                                                                                                                                                                                                                                            200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1099
                                           404
                                                                                    402
                                                                                                                                                                                                             521
                                                                                                                           461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TAE_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ITGAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                               요
                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
유
                                           ò
                                                                               q
                                                                                                                        ò
                                                                                                                                                                                                        ò
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. THE ALPHA SUBUNIT IS COMPOSED OF AN HEAVY AND A LIGHT CHAINS LINKED BY A DISULFIDE BOND. ALPHA-E ASSOCIATES WITH BETA-7.

SUBCELLULAR LOCATION: TYPE I membrane procein.

DOWAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.

SIMILARITY: OCOLEAINS 17 THE INTEGRIN ALPHA CHAIN FAMILY.

SIMILARITY: CONLAINS 7 FG-GAP repeats.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane;
Signal; Repeat; Magnesium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LIGHT CHAIN.
HEAVY CHAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EXTRACELLULAR (POTENTIAL).
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               X-DOMAIN (EXTRA DOMAIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GLU-RICH (ACIDIC).
GFERM MOTIF.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INTEGRIN ALPHA-E.
INTEGRIN ALPHA-E
INTEGRIN ALPHA-E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POTENTIAL. POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FG-GAP 7.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pfam; PF00092; vwa; 1.
PRINTS; PR01198; INTEGRINA.
PRINTS; PR00453; VWFADCMAIN.
SMART; SM00191; Int_alpha; 3.
SMART; SM00327; VWA; 1.
PROSITE; PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HSSP, P11215; 1A8X.
MGD; MGI:1298377; Itgae.
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002035; VWF_A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FG-GAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FG-GAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VWFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF01839; FG-GAP; 3.
Pfam; PF00357; integrin A; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; U12236; AAC52142.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19
1167
181
1167
1114
11137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               192
384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  564
631
686
688
522
522
586
654
654
1144
1144
754
83
820
820
820
820
820
820
820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   501
                                                                                                                                                                       INTESTINAL WALL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Calcium.
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHAIN
CHAIN
CHAIN
```

· ·

00	TREAUTA 8  TO 1.007-1994 (Rel. 10) Created)  DT 30-MAY-2000 (Rel. 30) Last sequence update)  E Integrin alpha-E precursor (Mucosal lymphocyte-1 antigen) (HML-1  DE INTEGRA (CD103 antigen) (Integrin alpha-IEL).  CO RAMMALIS ENtheria; Primates; Catarrhini; Hominidae; Homo.  CO RAMMALIS Entheria; Primates; Catarrhini; Hominidae; Gali W.A.,  RA Shorelersuk V., Boiffact Y., Dietrich N.L., Maduro V.V., McDowell G.,  RA Brouchman J.W., Anikater Y., Dietrich N.L., Maduro V.V., McDowell G.,  RA ROLINE-2013849; PubMed=10673275;  RA ROLINE-2013849; PubMed=10673275;  RA ROLINE-2013849; PubMed=10673275;  RA ROLINE-2013849; PubMed=10673275;  RA RA Shorelersuk V., Boiffact G.G., Dietrich N.L., Maduro V.V., McDowell G. R.  RA Rocelersuk V., Boiffact G.G., Dietrich N.B., RA Shorelersuk V., Boiffact G.G., Dietrich N.B., RA Shorelersuk V., Boiffact G.G., Dietrich N.B., RA Shorelersuk V., Boiffact G.G., Dietrich R. RA Shorelersuk V., Boiffact G.G., Dietrich R. RA Shorelersuk V., Boiffact G.G., Dietrich R. RA Shorelersuk V., Boiffact G.G., Dietrich R. RA Shorelersuk V., Boiffact G.G., Dietrich R. RA Shorelersuk V.
DISULFID  DISULFID  S1 51	145PQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYS 193  181 RRTVEEEDEEEDCTEIATULDGSGSIGPRAN

```
5330
5544
11562
1562
1053
1053
1053
1055
1055
1065
1065
1065
1065
1065
                                 DISULPID
DISULPID
DISULPID
DISULPID
DISULPID
DISULPID
                                                                                                                                                                                                                                                  CONFLICT
CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            411
                                                                                                             CARBOHYD
CARBOHYD
                                                                                                                                     CARBOHYD
CARBOHYD
                                                                                                                                                                                                                         MUTAGEN
MUTAGEN
CONFLICT
                                                                                             CARBOHYD
                                                                                                      CARBOHYD
                                                                                                                               CARBOHYD
                                                                                                                                                       CARBOHYD
                                                                                                                                                                 CARBOHYD
                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                 CARBOHYD
CA BIND
CA BIND
CA BIND
SITE
                                                                                                                                                                                         /ARIANT
                                                                                                                                                                                                          JARIANT
 g
                                                                                                                                                                                                                                                                                                                                                윰
                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ⋧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                -!- SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. THE ALPHA SUBUNIT: HETERODIMER OF AN HEAVY AND A LIGHT CHAINS LINKED BY A SUBUNIT IS COMPOSED OF AN HEAVY AND A LIGHT CHAINS LINKED BY A LIGHTLED BOND. ALPHA-E ASSOCIATES WITH BETA-7.
-!- SUBCELLULAR LOCATION: Type I membrane protein.
-!- TISSUE SPECIFICITY: EXPRESSED ON A SUBCLASS OF T-LYMPHOCYTES KNOWN AS INTRA-EPITHELIAL LELLS.
-!- DOMAIN: THE INTEGRIN I POWAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
-!- SIMILARITY: GONTAINS TO THE INTEGRIN ALPHA CHAIN FAMILY.
-!- SIMILARITY: CONTAINS 7 FG-FAP PEPEARE.
-!- SIMILARITY: CONTAINS 7 FG-FAP PEPEARE.
-!- SIMILARITY: CONTAINS 7 FG-FAP PEPEARE.
-!- SIMILARITY: CONTAINS NOTE-CD guide CD103 entry;
WWW="http://www.ncbi.nlm.nih.gov/prow/cd/cdl103.htm".
                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatice Institute. There are no restrictions on its way non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch)
                                          Brenner M.B.;
"The role of alpha and beta chains in ligand recognition by beta 7 integrins.";
J. Biol. Chem. 275:25652-25664(2000).
-!- FUNCTION: INTEGRIN ALPHA-E/BETA-7 IS A RECEPTOR FOR E-CADHERIN. IT MEDIATES ADHESION OF INTRA-EPITHELIAL T-LYMPHOCYTES TO EPITHELIAL
                                  Higgins J.M.H., Cernadas M., Tan K., Irie A., Wang J.-H., Takada Y., Brenner M.B.;
                                                                                                                                                                                                                                                                                                                                           FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
                MUTAGENESIS OF ASP-109 AND PHE-316.
MEDLINE=20400502; PubMed=10837471;
                                                                                                                                                                                                                                                                                                    EMBL, L25851; AAB59359.2; -.. EMBL, AF168787; AA443107.1; -.. FIR, A53213; A53213. HSRP, P11215; 1A8X. Genew; HGNC:6147; ITGAE.
Genome, Res. 10:165-173 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           199
391
506
571
638
                                                                                             CELL MONOLAYERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           145
200
200
401
457
510
573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REPEAT
```

```
41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     64 PGPLHRCSLVQDEILCHPVEHVPIPKGRHRGVTVVRSHHGVLICI----QVLVRRP--H 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         136 -KFPEALRGCPQED------SDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL- 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5 VLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQG----SRVVVGAPQEIVAANQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RGSLYQCDYSTGS--CEPI-RLQVP-----VEAVNMSLGLSLAATTSPPQLLACGPTVH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               234 EKCPECNFALVQYGGVIQTEFDLRDSQDVMASLARVQNITQVGSVTKTASAMQHVLDSIF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360 TSNGP-LLSTVGSYDWAGGVFLY-TSKEKSTFINMTRVDSDMNDA----YLGYAAAIILR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LDEROVLLGAVGAFDWSGGALLYDTRSRRGRFLNOTAAAAADAEAAQYSYLGYAVAVLHK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7 LLCIASLALLAAFNVDVARPWLTPKGGAPFVLSSLLHQDPSTNOTWLLVTSPR---TKRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181 -KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240 NITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LNTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        414 NRVQSLVLGAPRYQHIGLVAMFR-QNTGMWESNANV-KGTQIGAYFGASLCSVDVDSNGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels 180; Gaps
                                                                                                                                                                                    (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                 208 / 7.112-VAR JOSOSO

316 F->A: LOSS OF E-CADHERIN BINDING.

477 V -> I (IN REF. 3).

482 Q -> R (IN REF. 3).

950 R -> W (IN REF. 3).

1019 A -> V (IN REF. 3).

AA; 130088 MW; E558902EDF9D95E1 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 1179;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
19.5%; Score 1163; DB 1; 1
Best Local Similarity 28.8%; Pred. No. 1.3e-70;
Matches 356; Conservative 221; Mismatches 481;
                                                                                                                                                                                                                          (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                   (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                (GLCNAC.
                                                                                                                                                (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                      /FTId=VAR 008885
                                                                                                                                                                                                                                                                                                               (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                              /FTId=VAR_008884
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          111 QTCSENTYVKGLCFLFGSNLRQQPQ------
                                                                                                                                                                                                                                                                                                                                                                          Ω
```

```
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     872
                                                                                                                                                                                                                                                                                                                                                                              922
                                                                                                                                                                                                                                                                                                                                                                                                                                       982
                                                         585
                                                                                     646
                                                                                                                                                                          705
                                                                                                                                                                                                     755
                                                                                                                                                                                                                                761
                                                                                                                                                                                                                                                              813
                                                                                                                                                                                                                                                                                         821
                                                                                                                                                                                                                                                                                                                                                 881
                                                                                                                                                                                                                                                                                                                                                                                                          934
                            587
                                                                                                                QSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVK 645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Biol. Chem. 268:2989-2996(1993).

FINCTION: INTEGERIN ALPHA-1/BETA-1 IS A RECEPTOR FOR LAMININ AND COLLAGEN. IT RECOGNIZES THE PROLINE-HYDROXYLATED SEQUENCE G-F-P-G-E-R IN COLLAGEN.
TDLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDV
                   GEEDNR - - GAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFG
                                                                         GKEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQV
                                                                                                                                                                                            FNGVVNVRLCFEI-SSVTTASESGLREALLNFTLDVDVGKQRRRLQCSDVRSCLGCLREW
                                                                                                                                                                                                                                ---CIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLF
                                                                                                                                                                                                                                                  SSGSQLCEDL-LLMPTEGELCEEDCFSNASVKVSYQL-QTPEGQTDHPQPILDRYTEPFA
                                                                                                                                                                                                                                                                                                          873 NYPRNLO-----LKRMOKPPSPNIOCDDPOPV---ASVLIMNCRIGHPVL-KRSSAHVS
                                                                                                                                                                                                                                                                                                                                                                                                          882 ITFDVDSKASLGNKLLLKANVTSENN----MPRTNKTEFQ---LELPVKYAVYMVTSHG
                                                                                                                                                                                                                                                                                                                                                                                                                                  VVWQLEENAFPNRTADITVTVTNSNERRSLANETHTLQFRHGFVAVLSKPSIMYVNTGQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VS--TKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQVTFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ----SDKENVTVAAEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SPDWYIKTSHNHLLIVST----ABILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
MEDLINE=31155124; PubMed=8428973;
Bridesewitz R., Epstein M.R., Marcantonio E.E.;
Expression of native and truncated forms of the human integrin alpha 1 subunit.";
                                                                                                                                                                                                                                                                                         TALFPFEKNCGNDNICODDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTF
                                                                                                                                                                                                                                                                                                                                                  822 FFPLDLSYRKVSTLONGRSORSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCHI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
11c-Sgrin alpha-1 (Laminin and collagen receptor) (VLA-1) (CD49a)
1TGA1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ||:|: |||||||:| |
LPIIIKGSVGGLLVLIVILLVILFKCGFFKRKYQQLNLE 1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QASTVCTWSQERACAYSS-VQHVEEWHSVSCVIA-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT; 1151 AA
                                                                                                                                                                                                                                   LGLTQTCETLKLQLPN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                          NGDKLTDVAIGAP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ITA1 HUMAN
P56199;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1107
                                                                                                                                                                           646
                                                                                                                                                                                                                                   904
                                                                                                                                                                                                                                                                                                                                                                                                                                        923
                                                                                       588
                                                                                                                                                                                                                                                                756
                               529
                                                          532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 9
ITAL_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                          g
                                                                                                                                                                          ò
                                                                                                                                                                                                g
                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                         ò
                                                          ò
                                                                                                                ò
```

	RESULT 10  ITAH HUMAN  ID _ITAH HUMAN  STANDARD; PRT; 1189 AA.  AC QUUKZS; QUKQ1;  DT 16-OCT-2001 (Rel. 40, Created)  DT 16-OCT-2001 (Rel. 40, Last sequence update)  DT 18-OCT-2001 (Rel. 41, Last annotation update)  DT 18-OCT-2001 (Rel. 40, Last sequence update)  DT 18-OCT-2001 (Rel. 40, Last sequence update)  DT 18-OCT-2001 (Rel. 40, Last sequence update)  DT 18-OCT-2001 (Rel. 40, Last sequence update)  CN 17GAII.  CN HOME SEQUENCE (Human).  CN NORT TAXID=9666;  RN NORTH TAXID=9666;  RN ABDLINE=98410678;  PR SEQUENCE FROM N.A.  RY MEDLINE=98410678;  RA Lehnert K., Ni J., Leung E., Gough S.M., Weaver A., Yao W.P., Liu D.,  RA Mang SX., Morris C.M., Krissansen G.W.;  RT "Cloning, sequence analysis, and Chromosomal localization of the novel  RT human integrin alphall subunit (ITGAII).";	RL Genomics 60:179-187(1999).  RR [2]  RP [2]  RP SEQUENCE FROM N.A.  RC TISSUE=Fetal muscle, and Uterus;  RX MEDLINE=9935147; PubMed=10444311;  RA MEDLINE=9935147; PubMed=10444311;  RT TINESTIO. A collagen-binding, i domain-containing, beta (1) -associated a timegrin. A collagen-binding, i domain-containing, beta (1) -associated a timegrin alpha-chain present in muscle tissues.";  RL J. Biol. Chem. 274:25735-25742(1999).  RR [3]  SEQUENCE OF 954-1188 FROM N.A.  RP SEQUENCE OF 954-1188 FROM N.A.  RADATEL N. Estivill X., Escarceller M., Sumoy L.;  RADATEL N., Estivill X., Escarceller M., Sumoy L.;  RADATEL N., Estivill X., Escarceller M., Sumoy L.;  RADATEL N., Estivill X., Escarceller M., Sumoy L.;	AL SUBMITTER (UNY-ZUOU) TO THE BMBL/GENBRAK JUBE GREEPTOR FOR COLLAGEN.  CC -!- FUNCTION: INTEGRIN ALPHA-11/BETA-1 IS A RECEPTOR FOR COLLAGEN.  CC -!- SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-11  CC SUBCELLUTAR LOCATION: Type I membrane protein.  CC -!- TISSUE SPECIFICITY: ACCORDING REF.2 HIGHEST LEVELS IN UTERUS AND CC HEART, INTERMEDIATE LEVELS IN SELETAL MUSCLE AND INTERMEDIATE TO LOW LEVELS IN PANCREAS, KIDNEY AND PLACENTA. ACCORDING REF.1 ALSO  CC FOUND IN BRAIN, COLON, LUNG, SMALL INTESTINE, STOWACH, TESTIS, CC SALIVARY GLANDS, THYROLY GLANDS, THYROLY GLANDS, THYROLY GLANDS, FERT LOW LEVELS IN PRIPHERAL BLOOD LYMPHOCYTES, FETAL BRAIN AND FETAL LIVER.  CC -!- DEVELOPMENTAL STAGE: STRONGLY UP-REGULATED IN DIFFERENTIATING  CC -!- DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS
FT CARBCHYD 946 946 N-LINKED (GLCNAC) (POTENTIAL). FT CARBCHYD 980 N-LINKED GLCNAC) (POTENTIAL). FT CARBCHYD 1045 1045 N-LINKED GLCNAC) (POTENTIAL). FT CARBCHYD 1055 1055 N-LINKED GLCNAC) (POTENTIAL). FT CARBCHYD 1074 1074 N-LINKED GLCNAC) (POTENTIAL). FT CARBCHYD 1085 1065 N-LINKED GLCNAC) (POTENTIAL). FT CARBCHYD 1085 1065 N-LINKED GLCNAC) (POTENTIAL). FT CARBCHYD 1085 1065 N-LINKED GLCNAC) (POTENTIAL). FT CARBCHYD 1085 1065 N-LINKED GLCNAC) (POTENTIAL). FT CARBCHYD 1085 1065 N-LINKED GLCNAC) (POTENTIAL). FT CARBCHYD 1085 1065 N-LINKED GLCNAC) (POTENTIAL). FT CARBCHYD 1085 1065 N-LINKED GLCNAC) (POTENTIAL). FT CARBCHYD 1085 1065 N-LINKED GLCNAC) (POTENTIAL). FT CARBCHYD 1085 N-LINKED GLCNAC) (POTENTIAL). FT CARBCHYD GLCNAC) (POTENTIAL). FT CARBCHYD N-LINKED GLCNAC) (POTENTIAL GLCNAC) (POTENTIAL). FT CARBCHYD N-LINKED GLCNAC) (POTENTIAL GLCNAC) (POTENTIAL GLCNAC) (POTENTIAL GLCNAC) (POTENTIAL GLCNAC) (POTENTIAL GLCNAC) (POTENTIAL GLCNAC) (POTENTIAL GLCNAC) (POTENTIAL GLCNAC) (POTENT	YSEFRIHFTEKEFONDPRESLVKPITQLIGR  YGENVTHEFNLNKYSSTEEVLVAAKKIVQRGGR KILVVITDGEKFGDPLGYEDVIDEADREGVIRY   :: :     :     :      KUMVIVTDGESH-DNHRLKKVIQDCEDENIQRF  ::  :	Db 473 KDSNTDILLVGAPMYMGTEKEEGGKVYVYALNQTREYGMSLEPIKQTCCSSRQHNSCTT 532  Qy 512 GEGGOPMG-RFGAALTVLGDVNGDKLTDVALGAPGEEDNRGAVYLFHGTSGSGISPSHSQ 570  Db 533 ENKNEPCGAREGTALAVKDLNLDGFNIVIGAPLEDDHGGAVYTYMG-SGTIRKEYAQ 591  Qy 571 RIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSVKAIMEPNR 630	OY 688 SRAVENETKNSTROTOVLGLTOTCETLKLQLPNCIEDPVSPIVLELNFSLVGT 741

```
973
   973
   CARBOHYD
                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration the Swiss Frort entry is copyright. It is produced through a collaboration the Buropean Bioinformatics of Bioinformatics and the EMBL outstation use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to licensesib-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; AR109681; AAP01258.1; --

EMBL; AR103681; AAP01258.1; --

EMBL; AL359064; CAB94392.1; --

EMBL; AL359064; E. integrin. complex; TAS.

GO; GO:0007160; P: cell adhesion receptor activity; TAS.

GO; GO:0007160; P: cell adhesion receptor activity; TAS.

GO; GO:000717; P: muscle development; TAS.

EMBL; PRO1839; FG-GAP; 3.

EMBL; PRO1839; FG-GAP; 3.

EMART; SM00191; Int_alpha; S.

EMART; SM00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
SIMILARITY: BELONGS TO THE INTESENIA ALPHA CHAIN FAMILY.
SIMILARITY: Contains 1 VWFA domain.
SIMILARITY: Contains 7 FG-GAP repeats.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FG-GAP 3.
FG-GAP 4.
FG-GAP 6.
FG-GAP 6.
FG-GAP 6.
FG-GAP 6.
FG-GAP 7.
POLY-LEU.
POLY-LEU.
POTENTIAL.
BY SIMILARITY.
BY SIMILAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LINKED
LINKED
LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        83
139
159
668
729
787
893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DISULFID
DISULFID
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CA_BIND
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
DOMAIN
CA BIND
CA BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
   STATEST STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES STATES S
```

N-LINKED (GLCNAC. N-LINKED (GLCNAC. V-N-LINKED (GRCNAC. V-N-LINKED	G 71 E 11	DVÝKČPVIHĠNČTKLNĽGRVTLSNÝSERKDNMRĽĠĽŠĽÁTNPKDNSFĽÁČSPLMSHEČGS 131 NTYVKGLCFLFGSNLRQOPQKFPBALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVST 175	KVVRELFNITNGARKNAFKILVVITDGEKFGDPLGXEDVIPEADREGVIRYVIGV 287	LCSVDVDSNGSTDLVLIGAPHYYEQTR-GGQVSVCPLPRGORARWQCDAVLYGEQGQPWG 519
973 1032 1040 433 524 972 1003 1003 1094 18.5\$	ty 28.5% ervativeFNLDTE   :   FTDTFNMDTR STGSCEPIRL	VYKČPVIHĠNČTKINLGRVTLSI TYVKGLCFLFGSNLRQOPOKFPI                   YYTTGMCSRVNSNFRFSKTVAP MEOLKKSKTLFSLMQYSEEFI :::       : LKKFYIGPGQIQVGVVQYGEDV	NITNGARKON  Q - CGGRKGA  Q - CGGRKGA  KSRQELNTIA                    ITPLNEITSNGF  F       F       ILENRY - CS  ILLENRY - CS  ILLENRY - CS  INSTANTA	LCSVDDVDSNGSTDLVLIGAPHYYEQTR
973 1032 1040 433 524 972 1003 1094 1189	imilarity ; Conserv ALTLCHG ALSLWPGFTD SLYQCDYSTG : :	DVYKCPV  NTYVKGL     :    : SYYTTGM  VMEQL	FARSEAF GDAFRSE GDAFRSE RRGINPE HEMSQEG       LEMSQTG	LCSVDVD
6667 7 7 7 7 8 4	local S 38 354 10 12 62	72 116 132 176	2333 288 3 05 3 48 4 4 4 03 4 4 4 03	1401008851
	e o o	8 8 8 8 8	6 6 6 6 6 6 6	8 6 8 6 8 6 8 6 8

```
DOMAIN
TRANSMEM
DOMAIN
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CA BIND
CA BIND
CA BIND
SITE
SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VARIANT
VARIANT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REPEAT
  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                   :| :::::::| |:::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::| | :::
                                                                                                                                                                                                                                                                                                                                                                                                                   950 RUMOHOYQVSNLGQ---RSLPISLVFLVPVRLNOTVIWDRPQVTFSENLSSTC----HTK 1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1057
                                                                                                      836
                                                                                                                                                          871
                                                                                                                                                                                                                                                              923
                                                                                                                                                                                                                                                                                                                 949
                                                                                                                                                                                                        837 NORSORSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKL 896
                                                                                                                                                                                                                                                                                                                                                               924 EIELAAGSDSNERDSTKEDNVAPLRFHLKYEADVLFTRSSSLSHYEVKLNSSLERYDGIG 983
  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-94193647; Pubmed=7511592; Kamata T., Puzon W., Takada Y.; Takada Y.; Takada Y.; Takada Y.; Takada Y.; Takada Y.; Takada Y.; Takada Y.; Takada Y.; Takada Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; Takadi Y.; 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ASSOCIATES WITH BETA-1.

--- SUBCELLULAR LOCATION: Type I membrane protein.
--- DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
--- SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
--- SIMILARITY: Contains I VWFA domain.
--- SIMILARITY: Contains 7 FG-GAP repeats.
                                                                                                                                    814 AQDCSAYTLSFDTTVFIJESTRQRVAVEATLENRGENAYSTVLNISQSANLQF--ASLIQ
                                                                                                                                                                                                                                           897 LLKANVISENNMPRINKTE--PQLELPVKYAVYMVVISHGVSTKY---LNFTAS--ENIS
                                                ----DHGPMLDDGWPTTLRVSVPFWNGCNEDEHCVPDLVLDARSDLPTAMEYCQRVLRKP
                                                                                                    ----SITFSFMSLDCLVVGGPREFNVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWY----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1058 IKTSHNHLLIVSTABILRNDSVFTLLPGQGAFVRSQTBTKVEPFBVPN------PLPLIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              annotation update) (Platelet membrane glycoprotein Ia) (GPIa) alpha chain) (CD49b) (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Cetartiodactyla, Ruminantia, Pecora, Bovoidea,
Bovidae, Bovinae, Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EXTRACELLULAR MATRIX.
SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GSSVGGLLLLALITAALYKLGFFK--RQYKDMMSEGGPPGAEP 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1170 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (Rel. 34, Created)
(Rel. 34, Last sequence update)
(Rel. 41, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Integrin alpha-2 precursor
(Collagen receptor) (VLA-2
ITGA2.
                                                                                                                                                                                                                                                           872 KEDSDGS--IECVNEER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bos taurus (Bovine)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ITA2 BOVIN
P53710;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TA2_BOVIN
                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                              8
                                                                                                 ò
                                                                                                                                               g
                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
```

```
use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -- DYSTGSCEPIRLQ------VPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENT 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LTLCHGFNLDTENAMTFQ-ENARGFGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13 LNCCVAYNVGLPKAKIFSGPSSEQFGYAVQQFINPKGNWLLVGSPWSGFPKNRMGDVYKC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                   PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS00242; WPA; 1.
Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane;
Platelet; Signal; Repeat; Polymorphism; Calcium; Magnesium.
NON TER 118 POTENTIAL.
SIGNAL 110 INTEGRIN ALPHA-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18.5%; Score 1099; DB 1; Length 1170; 27.8%; Pred. No. 2.8e-66; tive 215; Mismatches 498; Indels 168;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SITE (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EECEFICSF2448FB1 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INTEGRIN ALPHA-2.
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  POTENTIAL.
CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CELL ATTACHMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GFFKR MOTIF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FG-GAP 3.
FG-GAP 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FG-GAP 7.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POTENTIAL
                                                                                                                            EMBL, L25886; AAB59255.1; -. HSSP, 145314; 145914.
HSSP, 197301; JAOX.
INCEPPO; IPRO0013; INTEGRIN_alpha.
INTERPO; IPRO02035; VWF A.
PÉAM; PRO0137; INTEGRIN_A; 1.
PÉAM; PRO0137; INTEGRIN_A; 1.
PRINTS; PR00185; INTEGRINA.
PRINTS; PR00191; INT Alpha; 5.
SWART; SM00191; INT Alpha; 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FG-GAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FG-GAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FG-GAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VWFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    128929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 340; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        =
=
=
=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         865
1039
1049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             725 72
1170 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
```

```
1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ---RLPSHS 1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      973
                                                                                                                                                                                                                                                                         455
                                                                                                                                                                                                                                                                                               478
                                                                                                                                                                                                                                                                                                                                                                          573
                                                                                                                                                                                                                                                                                                                                                                                                   594
                                                                                                                                                                                                                                                                                                                                                                                                                            631
                                                                                                                                                                                                                                                                                                                                                                                                                                                  654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  756
                                                                                                                                                                                                                                        287
                                                                                                                                                                                                                       401
                                                                                                                                    S SARDTAYSTAAGGRPGATKVMVVVTDGESH-DGSKLKAVIDQCNKDNILRFGIAVLGYL
                                                                                                                                                                                                                                                                         AYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANV-----KGTQIGA
                                                                                                                                                                                                                                                                                                                                                                          514 QGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIA
                                                                                                                                                                                                                                                                                                                                                                                       GS--KLSPRLQYFGQSUSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPRE
                                                                                                                                                                                                                                                                                                                                                                                                                                          VARNVFECNDOVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALD----SGRPH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SRAVENETKNSTRROTQVLGLTQTCB - -TLKLQLPNCIEDPVSPIVLRLNFSL - - VGTPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EFNVTVTVRNDGEDSYRITQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASST-EVSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RLTFSVQLKNKKESAYNTEIVVDFSENLFF------ASWSMPVDGTEVTCQIAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEFQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SQKSVTCNVGYPALKSKQQVTFTINFDFNLQ-NLQNQASISFRALSESQEENMADNSVNL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQR-----SLPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               974 SMA-----SVIIHIPQYTKDKNPLMYLTGVHTDQAGDISCEAEINPLKIGQTSSSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1010 DFLAB-LRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SPKSENFRHIKELNCRTASCSNIMCWLRDLQVKGEYFLNVSTRIWNGTFAASTFQTVQLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               --- LPGOGAFVRSQTETKVEPFE-VPNPLPLIVGSSVGGLLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EHEMSQEGFSAAIT -- SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT -- RVDSDMN-D
                                                                                                                                                                                                                                                                                                SYLGYSVASISTGNSVHFVAGAPRANYTGQIVLYSVN----ENGNVTVIQSQRGDQIGS
                                                                                                                                                                                                                                                                                                                         YFGASLCSVDVDSNGSTDLVLIGAPHYYEQTR--GGQVSVCPLPRGQRARWQCDAVLYGE
                                                                                                                                                                                                                                                                                                                                       SAFGNLRPVLAEDAQRUFTALFPFEKNCGNDNICQDDLSITF----SFMSLDCLVVGGPR
                       YVKGLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVM
                                                                                        NRNALDTKNLIKEIKAIASIPTERHFFNVSDEADLLEKAGTIGEQIFSIEGTVQG-GDNF
PVDLSTTTCEKLNLQT$TSMSNVTEMKTNMSLGLTLTRNVGTGGFLTCGPLWAQQCGSQY
                                     YTTGVCSDVSPDF-QLRTSFAPAVQTCP-SFIDVVVVCDESNSIYPWD--AVKNFLEKFV
                                                                                                                      RKVVRELFNITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGV----
                                                                      EQLK--KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLL----GRTHTATGI
                                                                                                                                                                         -GDAFRSEKSRQELNTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SLVFLVPVRLNQTVIWDRPQVTFSEN---LSSTCHTKE------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1069 STAEI-LFNDSVFTL--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   I--TLLNKNAEI----
                                                                                                                                                                                                                                                 364
                                                                                                                                                                                                                                                                                                                                                                                                   536
                                                                                                                                                                                                                                                                                                                                                                                                                                                    595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               696
                                                                                                                       232
                                                                                                                                                                                                 305
                                                                                                                                                                                                                                                                                                424
                                                                                                                                                                                                                                                                                                                                                                                                                            574
                                                                                                                                                                                                                          347
                                                                                                                                                                                                                                                                                                                                                  479
                                                                       178
                                                                                                189
                                                                                                                                                246
                                                                                                                                                                         288
                                                                                                                                                                                                                                                                         402
                                                                                                                                                                                                                                                                                                                          456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                      8 6
                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                         ठ व ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                         g
                                                                                                                  ò
                                                                                                                                            g
                                                                                                                                                                                         ď
                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                  8
                                            셤
                                                                      ઠે
                                                                                                                                                                      8
```

```
Which Santoro S.A.;
"Complex patterns of expression suggest extensive roles for the alpha
RT 2 beta 1 integrin in murine development.";
Dev. Dyn. 199:202-314(1994).

C beta 1 integrin in murine development.";
Dev. Dyn. 199:202-314(1994).

C Linegrin in murine development.";
Dev. Dyn. 199:202-314(1994).

C COLLAGENS ENERSION OF PLATELETS AND OTHER CELLS TO
COLLAGENS, MODULATION OF COLLAGEN AND OTHER CELLS TO
COLLAGENS, MODULATION OF COLLAGEN AND COLLAGENSE GENE EXPRESSION,
FORCE GENERATION AND ORGANIZATION OF NEWLY SYNTHESIZED
EXTRACELLULAR MATRIX. IT IS ALSO A RECEPTOR FOR LAMININS, COLLAGEN
C -PROPERTIDES AND E-CADHERIN. IN EMBRYOGENESIS.

C -PROPERTIES AND E-CADHERIN. MICE HOWOXYGOUS FOR A NULL MUTATION
IN THE ALPHA-2 DIE VERY EARLY IN EMBRYOGENESIS.

C -SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-2
ASSOCIATES WITH BETA-1.

C -SUBUNIT: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS
WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.

C -SIMILARITY: GORLAINS I VWFA domain.

C -SIMILARITY: Contains 7 FG-GAP repeats.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 but
                                                                                                                                                                                                                                    glycoprotein Ia) (GPIa)
                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN=C57BL/6 X CBA, TISSUE=Lung;
MEDLINE=248463406; PubMed=8081889;
Edelman J.M., Chan B.M., Uniyal S., Onodera H., Wang D.Z.,
Damjanovich L., Latzer D.B., Finberg R.W., Bergelson J.M.;
The mouse VLA-2 homologue supports collagen and laminin adhesion not virus binding.";
Cell Adhes. Commun. 2:131-143(1994).
                                                                                                                                                                                                                                                                                                                  Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                    TTA2_MOUSE STANDARD; PRT; 1178 AA.
062465, Q62165, Q62165,
15-UUL-1998 (Rel. 36, Last sequence update)
15-UUL-1998 (Rel. 31, Last annocation update)
28-FEB-2003 (Rel. 41, Last annocation update)
(Hegyrin alpha-2 precursor (Platelet membrane glocallagen receptor) (VLA-2 alpha chain) (CD49b)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          alpha
LALITAALYKLGFFKROYKDM 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE=Lung;
MEDLINE=94355691; PubMed=7521231;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; X75427; CAA33178.1; -. PIR; S44142; S44142. HSSP; P1301; 1AOX. MGD; MGI: 96600; Itga2. InterPro; IPR000413; Integrin_al InterPro; IPR002035; VWE.A.
                      LLALVAILWKLGFFKRKYEKM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           [2]
SEQUENCE OF 450-1178 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pfam; PF01839; FG-GAP; 3.
Pfam; PF00357; integrin_A; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; Z29987; CAA82877.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00092; vwa; 1.
PRINTS; PR01185; INTEGRINA.
PRINTS; PR00453; VWFADOMAIN.
                                                                                                                                                                                                                                                                                                  Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                             FROM N.A
                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=10090;
1121
                                       1135
                                                                                             KESULT 12
ITA2_MOUSE
                                                                                                                                                                                                                                                                               ITGA2
                                                                                                                                        셤
  ઠે
```

451

569

627 658 683

```
973 KVTAGSAPVSMALVTIHIPQYTKEKNPLLYLTGIQTDQAGDISCTAEINPLKLPHTA--- 1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            706 SRVTSRGVFRENSERFLQKNMVVNEVQKCSEHHISIQKPS----DVVNPLDLRVDISLENP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  917 NKADNSVSLTIPLLYDAELHLT-RSTNINFYEISSDENAPSVIK---SVEDIGPKFIFSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1030 - PSVSFKNENFR---HTKE-----HTKE-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1045 NATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                       GRPHSRAVFNETKNSTRRQTQVLGLTQTCET - - LKLQLPNCIEDPVSPIVLRLNFSLVGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSI-----TFSFMSLDC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       763 GTS-----PALEAYSETVKVFSIPFYKEGGSDGICISDLILDVQQLPAIQTQSF----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LVVGGPREFNVTVTVRNDGEDSYRTQVTFPFPLDLSYRKVSTLQNQRSQRSWRLACESAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         860 VTCEVGSSQKSVTCDVGYPALKSEQQVTFTINFDFNLQ-NLQNQAAINFQAFSESQ--ET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NKTE--FOLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMOHOYOVSNLGOR----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ----SLPISLVFLV------PVRLNQTVIWD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       986 RPQVTF-SENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEF
                                                                                                                  01-AUG-1990 (Rel. 15, Created)
01-AUG-1990 (Rel. 15, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
11ntegrin alpha-2 precursor (Platelet membrane glycoprotein Ia) (GPIa)
(Collagen receptor) (VLA-2 alpha chain) (CD49b).
                                                                                                                                                                                 510 LYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHS
                                                                                                                                                                                                                                                                          QRIAGSKLSPR--LQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEF
                                                                                                                                                                                                                                                                                                 628 NPREVARNVFECNDOVVKGKEAGEVRVCLHVOKSTRDRLREGGIQSVVTYDLALD---S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ST-EVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRT
  SDMN-DAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANV----KGT
                                                                                           QIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTR - - GGQVSVCPLPRGQRARWQCDAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1105 NPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDM 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT; 1181 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         [1]
SEQUENCE FROM N.A., AND SEQUENCE OF 30-44.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                           659 TP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ITA2 HUMAN
P17301;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                742
                                                                                                                                     483
                                                                                                                                                                                                                                                                          570
                                                                                                                                                                                                                                                                                                                                                                                                                                                         684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               853
                                                                                           452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KESULT 13
ITA2 HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ITGA2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                        윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           名
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                            셤
                                                                                        ઠે
                                                                                                                                용
                                                                                                                                                                            ઠે
                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGNQYYATGIC----SQVSPDFQFLTSFSPAVQACPSL-VDVVVVCDESNSIYP--WEA 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | :|: ||: ||: || || | | :: :| ||::||: || :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | :| | 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GSSSSFEHEMSQEGFSA- | AITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT--RVD 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GDVYKCPVDLPTATCEKLINLÓNSASISNVTEIKTNIMSLGLTLTRNPGTGGFLTCGPLWAH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GSLYQC--DYSTGSCEPIRLQ-----VPVEAVNMSLGLSLAATTSPPQLLACGPTVHQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCSENTYVKGLCFLFGSNLRQQPQ---KFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HTATGIRKVVRELFNITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GV-----GDAFRSEKSRQELNTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VLLLTALTLCHGFNLDTKNAMTFQ-ENARGFGQSVVQL---QGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MKEFVSTVMEQLK--KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLG-RT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                              POTENTIAL.
POTENTIAL.
CELL ATTACHMENT SITE (POTENTIAL).
GEFKR MOTIF.
BY SIMILARITY.
N-LINKED (GLCNAC. . . ) (POTENTIAL).
                                                                                           Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels 188;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1089; DB 1; Length 1178;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1F194B9C0240F465 CRC64;
                                                                                                                                                                            EXTRACELLULAR (POTENTIAL)
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
                                                                                                                                                                                                                           CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-LINKED (GLCNAC. . .)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        th Pred. No. 1.3e-65;
209; Mismatches 492;
                     SMART; SM00327; VWA; 1.
PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
Integrin; Call adhesion; Receptor; Glycoprotein; Vlatelet; Signal; Repeat; Calcium; Magnesium.
SIGNAL BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GLCNAC
                                                                                                                                                          INTEGRIN ALPHA-
                                                                                                                                SIMILARITY
                                                                                                                                                                                                                                                                                          VWFA.
EG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
                                                                                                                                                                                                                                                FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                  POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .,
₩
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18.3%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       128926
SMART; SM00191; Int_alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity 28.19
nes 348; Conservative
                                                                                                                                                          1178
1129
1151
1178
100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1178 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              696
1054
1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    457
                                                                                                                                                                                                                                                                                               185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        109
                                                                                                                                                                                                                                                                                                                                         431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
CARBOHYD
SEQUENCE
                                                                                                                                                          CHAIN
DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SITE
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                            REPEAT
REPEAT
CA_BIND
CA_BIND
CA_BIND
CA_BIND
                                                                                                                                                                                                                                                                                          DOMAIN
REPEAT
REPEAT
                                                                                                                                                                                                                                                REPEAT
REPEAT
```

유

ò g ò g ે

ò

요

8 6

ď ે

ò

1044

964

792

705 741 762

SO SETT THE FETT THE

852 859

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@lsb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Thromb. Haemost. 83:392-396(2000).
-!- FUNCTION: INTEGENA ALPHA-2/BETA-1 IS A RECEPTOR FOR LAMININ,
COLLAGEN, COLLAGEN C-PROPEPTIDES, FIBRONECTIN AND E-CADHERIN. IT
RECOGNIZES THE PROLINE HYDROXYLATED SEQUENCE G-F-B-G-R-R IN
COLLAGEN. IT IS RESPONSIBLE FOR ADHESION OF PLATELETS AND OTHER
CELLS TO COLLAGENS, MODULATION OF COLLAGEN AND COLLAGENASE GENE
EXPRESSION, FORCE GENERATION AND ORGANIZATION OF NEWLY SYNTHESIZED
EXTRACELLULAR MATRIX.
MEDLINE=89308879; PubMed=2545729;
Takada Y., Hemler M.E.;
"The primary structure of the VLA-2/collagen receptor alpha 2 subunit (platelet GPIa): homology to other integrins and the presence of a possible collagen-binding domain.";
J. Cell Biol. 109:397-407(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=20206009; PubMed=10744142; Kroll H., Gardemann A., Fechter A., Haberbosch W., Santoso S.; "The impact of the glycoprotein Ia collagen receptor subunit A1648G gene polymorphism on coronary artery disease and acute myocardial
                                                                                                                                                                                                                                                                                                                                                                           "The human platelet alloahtigens Br(a) and Brb are associated with a signale amino acid polymorphism on glycoprotein Ia (integrin subunit
                                                                                                                                SEQUENCE FROM N.A.
Rieder M.J., Armel T.Z., Carrington D.P., Ozuna M., Kuldanek S.A.
Rajkuman N., Toth E.J., Yi Q., Nickerson D.A.;
Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                 MEDLINE=98019223; PubMed=9353312;
Ensiley J., King S.L., Bergelson J.M., Liddington R.C.;
"Crystal structure of the I domain from integrin alpha2betal.";
J. Biol. Chem. 272:28512-28517(1997).
                                                                                                                                                                                                                                                                                                               VARIANT HPA-5 (BR).
MEDLINE=94043762; PubMed=7901236;
Santoso S., Kalb R., Walka M., Kiefel V., Mueller-Eckhardt C.,
                                                                                                                                                                                                                  ANGSTROMS) OF 168-368
                                                                                                                                                                                                                                                                                                                                                                                                                               Clin. Invest. 92:2427-2432(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; AF512556; AAM34795.1
PIR; 'A33998; A33998.
PDB; IAOX; 25-NOV-98.
PDB; IDZI; 02-AUG-01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; X17033; CAA34894.1;
                                                                                                                                                                                                                  X-RAY CRYSTALLOGRAPHY (2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genew; HGNC:6137; ITGA2
MIM; 192974;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /ARIANT GLU-534.
                                                                                                                                                                                                                                                                                                                                                                    Newman P.J.;
```

```
N-LINKED (GLCNAC...) (POTENTIAL).
N-LINKED (GLCNAC...) (POTENTIAL).
N-LINKED (GLCNAC...) (POTENTIAL).
N-LINKED (GLCNAC...) (POTENTIAL).
N-LINKED (GLCNAC...) (POTENTIAL).
N-LINKED (GLCNAC...) (POTENTIAL).
N-LINKED (GLCNAC...) (POTENTIAL).
N-LINKED (GLCNAC...) (POTENTIAL).
N-LINKED (GLCNAC...) (POTENTIAL).
K -> E (IN ALLCANTIGEN HPA-5B;
dbSNP:1801106).
                                                                                                                                                                                                                                                         PROSITE; PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PS50234; WFRA; 1.
Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane; Platelet; Signal; Repeat; Calcium; Magnesium; Polymorphism;
GO; GO:0008305; C:integrin complex; TAS.
GO; GO:0005886; C:plasma membrane; TAS.
GO; GO:0004895; F:cell adheaion receptor activity; TAS.
GO; GO:0005518; F:cellagen binding activity; TAS.
GO; GO:0007596; P:blood coagulation; TAS.
GO; GO:0007160; P:cell-matrix adhesion; TAS.
GO; GO:0007187; P:histogenesis and organogenesis; TAS.
InterPro; IPR00413; Integrin_alpha.
                                                                                                                                                                                                                                                                                                                                                    INTEGRIN ALPHA-2.
EXTRACELLULAR (POTENTIAL)
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                    CYTOPLASMIC (POTENTIAL)
INTERACTION WITH HPSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FG-GAP 3.
FG-GAP 4.
FG-GAP 4.
FG-GAP 6.
FG-GAP 7.
POTENTIAL.
POTENTIAL.
POTENTIAL.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                    FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VWFA
                                                                                                                                           Pfam; PF01839; FG-GAP; 3.
Pfam; PF001839; Tintegrin, A; 1.
Pfam; PF00192; vwa; 1.
PRINTS; PR01185; INTEGRINA.
SMART; SW0191; Int, alpha; 5.
SWART; SW00327; VWA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   635
737
7937
7937
1050
1050
112
343
4450
460
475
699
1037
11081
534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3D-structure.
SIGNAL
SIGNAL
3
DOMAIN
3
TRANSMEM 113
DOMAIN
115
DOMAIN
115
DOMAIN
115
REPEAT
4
REPEAT
37
REPEAT
43
REPEAT
43
REPEAT
43
REPEAT
43
REPEAT
43
REPEAT
43
REPEAT
43
REPEAT
43
REPEAT
43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REPEAT
CA BIND
CA BIND
CA BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TURN
STRAND
TURN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HELIX
TURN
STRAND
TURN
STRAND
STRAND
TURN
HELIX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HELIX
TURN
HELIX
```

Qy         736         FSLVGTPLSAFGNLRPVLAEDAQRI           Db         760         ISLENPGTSPALEAYSET:           Qy         792         CLVVGGPREPNYTVTVRNDGEDSY:           Db         814         FIVSNQNKRLTFSVTLKKKRESAY:           Qy         852         SST-EVSGALKSTSCSINHPIFPER           Qy         862         EVTCQVAASQKSVACDVGYPALKR           Qy         911         TNKTEFQLELPVKYAVYMVTSHG           Qy         911         TNKTEFQLELPVKYAVYMVTSHG           Qy         921         KADNLVNLKIPLLYDAEIHL'           Qv         965        SLPISIVFLY	977 987 1033 1046 1073 1105	TTAG_HUMAN STANDARD; PRT ITAG_HUMAN STANDARD; PRT AC 075578; Q9UHZ8; DT 16-OCT-2001 (Rel. 40, Created) DT 16-OCT-2001 (Rel. 40, Last sequen DT 16-OCT-2001 (Rel. 41, Last annota DE Integrin alpha-10 precursor. GN ITGAlO.  GN ITGALO.  GN HOMO sapiens (Human).  CC Eukaryota; Metazoa; Chordata; Cra OX Mammalia; Eutheria; Primates; Cat OX NEL TaxID=9606;	RY SEQUENCE FROM N.A.  RY TISSUE=Articular chondrocytes;  RX Camper L., Hellman U., Lundgren-A RT Japhalo, cloning, and sequence RT alphalo, a betal-associated colla RT dondrocytes.";  J. Biol. Chem. 273:20383-20389(19) RN [5] RN [5] RN EDINE=Endothelial cells, and Hea RY MEDLINE=2105919; Pubmed=10702680 RA LHEAT K.N IJ., Leung B., Gung RY Lehnert K.N IJ., Leung B., Gung RY Lehnert K. and chromosomal localia RT The integrin alphalo subunit: ex RT structure, and chromosomal localia RY GC -: FUNCTION: INTEGRIN ALPHA-10/BC CC -: SUBUNIT: HETEROIMER OF AN AL CC -: SUBUNIT: HETEROIMER OF AN AL CC -: SUBCELLULAR LOCATION: Type I CC -: SUBCELLULAR LOCATION: Type I CC -: SUBCELLULAR LOCATION: Type I CC -: SUBCELLULAR LOCATION: Type I CC -: DOMANN THE BITERRIN I-DOMAIN CC -: DOMAIN: THE INTEGRIN I-DOMAIN CC -: DOMAINS DO NOT UNDERGO CC -: SIMILARITY: BELONGS TO THE IN
	44; 53 70 104 130 164	222 246 281 305 336 393	424 448 479 503 563 595 621 681 702 735
64;		NNPNPRSLVKPITOLL  TKEEMIVATSOTSOYG  LGYEDVI PEADREGVI	FGWSTIVOKTSHGHLIFPKQAF  IGLVAMFRONTGWMESNANV    GENERAL - GGQUSUCPLPRGGRAR    GENERAL - GGGUSUCPLPRGGRAR    GENERAL - GGGUSUCPLPRGGRAR    GENERAL - GGGUSUCPLPRGGGRAR    GENERAL - GGGUSUCPLPRGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG
7E1B7ED968A94070 CRC64	hes O-E SGP SGP TSI ASF	DFRRMKEFVSTVMEQLK - KSKTLFSLMQYSEBFRIHFTFKEFQNNPNPRSLVKPITQLL	GTVOG-GDNFOMEMSQUGFSADYSSQNDILMIGAVGAFGWSGTIVQKTSHGHLIFPKQAF-  **RVDSDNN-DAVGAAAIILRNRVOSLVLGAPRYQHGWFRQNTGWBSNANV  **SUGSVRQAAAIILRNRVOSLVLGAPRYQHGVTSVN
	18.3% Pred. No. tive 214, MismatcLCHGFNLDTENAMTF. GILNCCLLSCEPIRLQ	LKKEKTLFS LDIGPTKTQVG ELFNITNGARK STASASGGRR RSEKSRGELNT RSEKSRGELNT TIST STASE TIST STANE TIST S	MENSOVGFSADYSSG YLGYSAAAIILRNRVO YLGYSVAAIILRNRVO YLGYSVAAIILRNRVO YLGYSVAAISTGEST FGASLCSVUVDSNGS 
269 282 291 301 303 310 310 310 340 353 362 362 363	18.3% conservative 27.3% conservative 2 LLTALTLC LLALAGILINC LAGISTACCDY NORGSLYQCDY NNGRGBOVYCCPVDLS CHOCKENTYVKGI LAGISTACC	EFUSTUMEC  ::   NFLEKEVOG ATGIRKUVR  ::   FGAIQYARK  GDAF:   CGYLNRNAL	GDNF(OWENS)  MN-DAYLGY  MN-DAYLGY  MN-DAYLGY  GLGAYFGAS  OIGAYFGAS  OIGSYFGSO  LYGEGGOP  LEGPEGIE  LEGPEGIE  ORILGSDGS-R  ORILGSDGS-R  OKILGSDGS-R  OKILGSDGS-R  CRPHSRAVF  GRPHSRAVF
2692 2895 2895 3002 3134 3134 3134 3134 3134 3134 3134 313	al Similarity 319; Conserva 3 LRVLLLTALT- 11 [-  -  -  - - - -	0-0 x-x 0-	0 4 N Q O 4 O 4 N U N U N
TURN FELIX HELIX HELIX HELIX TURN STRAND HELIX TURN HELIX HELIX HELIX HELIX HELIX HELIX HELIX HELIX	ery Mat st Loca cches	165 189 223 247 247 282 306 3337	. w . w . w . w . w . w . w . w . w . w
111111111111111	Marie Ov Ov Ov Ov Ov Ov Ov Ov Ov Ov Ov Ov Ov	6 6 6 6 6 6	8 8 8 8 8 8 8 8 8 8 8

```
ISDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFN 1045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STAEI-LFNDSVFTLLPGQGAFVRSQTETKVEPFEVP 1104
                                                                                                                                    | | : | : | : | : | : | XNTGIVVDFSENLFF-----ASFSLPVDGT 861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPR 910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   :||| | || : : : | | : | | : | | : | | : | | : | : | | : | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GVSTKYLNFTASENTSRVMQHQYQVSNLGQR----- 964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               : :|| : :| : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : ... | : .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -----PVRLNQTVIWDR 986
RLFTALFPFEKNCGNDNICQDDLSITF --- SFMSLD 791
                                                                                                                                                                                                                                                                                                                                                                                                 YRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESA 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        I membrane protein.

EXPRESSED WITH HIGHEST EXPRESSIONS IN
ARTICULAR CARTILAGE.
IN (INSERT) IS A VWFA DOMAIN. INTEGRINS
GO PROTEASE CLEAVAGE.
INTEGRIN ALPHA CHAIN FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1,
-Aakerlund E.;
ce analysis of the integrin subunit
lagen binding integrin expressed on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 44(1999).
/BETA-1 IS A RECEPTOR FOR COLLAGEN
ALPHA AND A BETA SUBUNIT. ALPHA-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      raniata; Vertebrata; Euteleostomi;
starrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        eart;
80;
80;
sen G.W.;
expression pattern, partial gene
lization.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LALITAALYKLGFFKRQYKDM 1141
| :||:||:||:||:|:
|LLALVAILWKLGFFKRKYFKM 1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            T; 1167 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      998).
```

```
LPVGPGPEFKTTLRVQNLGCYVVSGLIISA--LLPAVAHGGNYFLSLSQVI----- 1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               441 MWESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYY--EQTRGGQVSVCPLPR 498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LGDRIFGLEGSHAENESSFGLEMSQIGFSTHRLKDGILFGMVGAYDWGGSVLWLEGGHRL 409
                                                                                                                                                                                            69 RRGDVYRCPVGGAHNAPCAKGHLGDYQLGNSSHP-----AVNWHLGMSLLETDGDGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            735 NFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDC--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LRVKAIMEFNPREVARNVFECNDOVVKGKEAG--EVRVCLHVQKSTRDRLREGOIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        YDLALDSGRPHSRAVFNET - - KNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 700 FTASLDEWTAGARAAFDGSGORLSPRRLRLSVG-NVTCEQLHFHVLD-TSDYLRPVALTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----LVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SRKAPFVVRGGRRKVLVSTTLENRKENAYNTSLSIIFSRNL---HLASLTPQR-ESPIKV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLG---NKLL----L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KANVTSENNMPRTNKTEFOLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQY --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ERNGTLQENTAQT------SAYIQYEPH-----LLFSSESTLHRYEVHPYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -----VRLNQTVIWDRPQVTF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AVRVAQSLQGEQIGSYFGSELCPLDTDRDGTTDVLLVAAPMFLGPQNKETGRVYVYLV--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       59 QRGSLYQC-----DYSTG-SCEPIRLQVPVEAVNMSLGLSLAATTSPPQ
                                                                                                                                                                                                                                                                                      179 YPWSEVQTFLRKLVGKLFIDP--EQIQ-----VGLVQYGESPVHEWSLGDFRTKEEVVRA
                                                                                                                                                                                                                                                                                                                                                          PEADREGVIRYVIGV-GDAFRSEKS----RQELNTIASKPPRDHVFQVNNFEALKTIQNQ
                                                                                                                                                                                                                                                                                                                                                                                                                                          LREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  388 TFINMTRVDS-----DMNDAYLGYA-AAIILRNRVQSLVLGAPRYQHIGLVAMFR-QNTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         410 FPPRMALEDEFPPALQNHAAYLGYSVSSMLLRGGRRLFLSGAPRFRHRGKVIAFQLKKDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GORARWOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPV
          LRVLLLTALTLCHGFNLDTENAMTFQENARG-FGQSVVQLQGSR----VVVGAPQEIVAAN
                                                                                                                                                                                                                                                                                                                                    VKPITQLLGR-THTATGIRKVVRELFNITNGARKNAFKILVVITDGEKF-GDPLGYEDVI
                                                11 LPLVFLTG--LCSPFNLDEHHPRLFPGPPEAEFGYSVLQHVGGGQRWMLVGAPWDGPSGD
                                                                                                                                                                                                                                                    162 IPHD-----FRRM--KEFVSTVMEQLKKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSL
                                                                                                                                                                       102 LLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          919
                                                                                                                                                                                                                                                                                                                                         215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   957
                                                                                                                                                                                                                                                                                                                                                                                                                       273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                              용
                                                                                             ઠ
                                                                                                                                   셤
                                                                                                                                                                         8
                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  47;
                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its meet by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                R GO; GO:0004895; C:integrin complex; TAS.

R GO; GO:0004895; F:cell addesion receptor activity; TAS.

R GO; GO:0004895; F:cell addesion receptor activity; TAS.

R GO; GO:0007160; P:cell-matrix addesion; TAS.

R InterPro; IPR000413; Integrin_alpha.

R Pfam; PF01899; FG-GAP; 3.

R Pfam; PF01899; FG-GAP; 3.

R Pfam; PF01899; INTEGRINA.

R PRINTS; PR00191; Int_alpha; FALSE_NEG.

R PRAKT; SM00191; Int_alpha; 4.

SMART; SM0191; Int_alpha; 4.

SMART; SM0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 1085.5; DB 1; Length 1167;
Pred. No. 2.3e-65;
6; Mismatches 492; Indels 183;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AE7D3A1C25C1AEA0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       POTENTIAL.
INTEGRIN ALPHA-10.
EXTRACELLULAR (POTENTIAL).
POTENTIAL.
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GLCNAC. . . . (GLCNAC. . . . (GLCNAC. . . . . (GLCNAC. . . . .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GLCNAC. .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GLCNAC. .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BY SIMILARITY.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -> L (IN REF. 2)
-> V (IN REF. 2)
-> D (IN REF. 2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY
SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY
SIMILARITY: Contains 1 VWFA domain. SIMILARITY: Contains 7 FG-GAP repeats.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        POTENTIAL.
BY SIMILAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POLY-LEU.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ноы≆
                                                                                                                                                                                                                  EMBL, AF074015, AAC31952.1; --
EMBL, AF112345; AAF21944.1; --
EMBL, AF172723; AAF61638.1; --
HSSP, P17301; 1AOX.
Genew, HGNC:6135; ITGA10.
MIM; 604042; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ΒŸ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ΒY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    196;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    127573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18.2%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ouery Match
Best Local Similarity 29.6
Matches 366, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1011
1018
1039
844
909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1167
1122
1145
1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       350
427
482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1011
1018
1039
844
909
926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CONFLICT
CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
TRANSMEM
DOMAIN
REPEAT
REPEAT
DOMAIN
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
CA BIND
CA BIND
CA BIND
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REPEAT
REPEAT
REPEAT
```

792 809 846 865 898 918 926

757

734

645 919 669

618

558 586

527

440 469

387

291 327

214 231

161

101

28 68

```
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    윰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation between the burpean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                       1009 TNNASCIVQNLTEPPGPPVHPEELQHTNRLNGSNTQCQVVRCHLGQLAKGTEVSVGLLRL 1068

§92 SENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGN 1051

                                                                                                                                                                                                                                                                                                                                                                                                                                                          X-RAY CRYSTALLOGRAPHY (2.1 ANGSTROMS) OF 151-364.
MEDLINE=99313197; PubMed=10386626;
Nolte M., Pepinsky R.B., Venyaminov S.Y., Koteliansky V.,
Nolte M., Rarpusas M.;
Nolte M., Rarpusas M.;
Nolte M., Rarpusas M.;
Integrin 1-domain function ";
FEBS! Lett. 452:379-385(1999)
-!-FUNCTION: INTEGRIN ALPHA-1/BETA-1 IS A RECEPTOR FOR LAMININ AND
COLLAGEN. IT RECOGNIZES THE PROLINE-HYDROXYLATED SEQUENCE G-F-P-G-
E-R IN COLLAGEN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUBDIVIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-1
SUBCELLULAES WITH BETA-1
SUBCELLULAE LOCATION: Type I membrane protein.
DOMAIN: THE INTEGRIN I - DOMAIN (INSER') IS A WH'A DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
SIMILARITY: CORTAINS 7 FG-GAP repeats.
                                                 1052 LSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIV
                                                                                                                                                                                                                                                                          Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBI_TaxID=10116;
                                                                                                                                                                                  PIAI RAT STANDARD; ...., P18614; 01-NOV-1990 (Rel. 16, Last sequence update) 15-SEP-2003 (Rel. 42, Last annotation update) 15-SEP-2003 (Rel. 42, Last annotation update) 15-SEP-2003 (Rel. 42, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                   Ignatius M.J., Large T.H., Houde M., Tawil J.W., Barton A., Esch F., Carbonetto S., Reichardt L.F.;
"Molecular cloning of the rat integrin alpha 1-subunit: a receptor for laminin and collagen."
                                                                                                  GSSVGGLLLLALITAALYKLGFF-----KRQYK 1139
                                                                                                                entities requires a license agreement (son send an email to licensesish-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PIR; A35854; A33854.
PDB; 1CK4; 03-MAY-00.
InterPro; 1PR000413; Integrin_alpha.
InterPro; 1PR002035; VWF_A.
Pfam; PF001839; FG-GAP; 3.
Pfam; PF00092; VWa; 1.
PRINTS; PR01185; INTEGRINA.
PRINTS; PR01185; INTEGRINA.
                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
MEDLINE=90338125; PubMed=2380249;
                                                                                                                                                                                                                                                                                                                                                                                                                                        Cell Biol. 111:709-720(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; X52140; CAA36384.1; -
                                                                                                  1112
                                                                                                                                                                 RESULT 15
                                                                                                                                                                          TA1_RAT
ઠે
                      a
                                               ò
                                                                    g
                                                                                                ò
                                                                                                                        g
```

```
47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     78 DVYKCPVGRERAMPCVKLDLPVNTSIPNVTBIKENMTFGSTL-VTNPNGGFLACGPLYAY 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SLYQCDYSTGSCEP-IRLQVPVEA------VNMSLGLSLAATTSPPQLLACGPTVHQ 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      137 RCGHLHYTTGICSDVSPTFQVVNSFAP--VQECSTQ-LDIVIVLDGSNSIYP--WESVIA 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FVSTVMEQLK -- KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLG-RTHTA 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LLLTALTLCHGFNLDTENAMTFQENARG-FGQSVVQL----QGSRVVVGAPQEIVAANQRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCSENTYVKGLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 18.2%; Score 1082; DB 1; Length 1180; Best Local Similarity 27.7%; Pred. No. 4e-65; Matches 351; Conservative 199; Mismatches 484; Indels 234; Gaps
                                                                                                                                                                                                                                                                                                                                                   (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                           (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                       (POTENTIAL)
SMART; SM00191; Int_alpha; 5.
SMART; SM00327; VWA; 1.
PROSITE; PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane; Signal; Repeat; Calcium; Magnesium; 3D-structure.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (POTENTIAL) (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (POTENTIAL
                                                                              INTEGRIN ALPHA-1.
EXTRACELLULAR (POTENTIAL)
POTENTIAL.
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8E5DA2BE02362EE4
                                                                                                                                                                                                                                                                                                                                                                                                                                                (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                  (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                      (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GLCNAC.
                                                                                                                                                                                                                                                                                                                               (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                         (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                            (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GLCNAC
                                                                                                                                                                                                                                                                                                                                                    GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GLCNAC
                                                                                                                                                                                                                                                                                                                                          (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GLCNAC
                                                                                                                                                                                                                                                 BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCM)
N-LINKED (GLCM)
N-LINKED (GLCM)
N-LINKED (GLCM)
                                                                                                                                                                                                                                            GFFKR MOTIF.
                                                                                                                           FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                           -LINKED
-LINKED
-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                      POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                  LINKED
                                                                                                                                                                                                                                                                                                                                                                                                       LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-LINKED
N-LINKED
                                                                                                                                                                                                             POTENTIAL
                                                                                                                                                                                                                                 POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                         LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-LINKED
                                                                                                                                                      FG-GAP
FG-GAP
FG-GAP
FG-GAP
                                                                                                                        FG-GAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AA; 130808 MW;
                                                                                                                                            388
432
484
565
626
681
505
587
1172
                                                                                                                                                                                                                                                               696
755
813
885
1062
1073
100
105
1112
217
317
                                                                                         1142
1165
1180
103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1007
1084
1103
1114
                                                                                                                                                                                                                                                                                                                                                                                  341
402
418
459
698
747
779
820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1084
1103
1114
11180
                                                                                        DOMAIN
TRANSMEM
DOMAIN
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                    DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                              CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           112
                                                                                                                                                                                                                                          SITE
                                                                                                                                                                                                                                                               DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                           CA BIND
CA BIND
CA BIND
                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                            DOMAIN
REPEAT
                                                                                                                                                                 REPEAT
REPEAT
                                                                                                                                                                                       REPEAT
REPEAT
                                                                              CHAIN
```

	_
g.	
<b>≿</b>	229 TGIRKVVRELFNITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVG 288
q	252 LGIDTARKEAFTEARGARGVKKVMVIVTÖGESH-DNYRLKQVIQDCEDENIQRFSIAIL 310
	289 DAFRSEKSROELNTIASKPPRDHVFQVNNFBALKTIQNQLREKIFAIEGTQTGSS 343
₹ ≿	SSERHEMSOBGESAATTSNGPLLSTVGSVDMAGGVFLYTSKEKSTFINMTRVDSDMND
. A	
.~	402AYLGYAAAIILRNRVOSLVLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFG 458
	431 PLASYLGYTVNSATIPGDVLYIAGQPRYNHTGQVVIYKMEDGNINILQTLGGEQIGSYFG 490
à	59 ASLCSVDVDSNGSTDLVLIGAPHYYEQTR-GGQVSVCPLPRGQRA 5
ą	
ķ	503 RWQCDAVLYGEQGQPWG-RFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSG 561
ą Q	551 SLKDNSCTKENKNEPCGARFGTAIAAVKDLNVDGFNDVVIGAPLEDDHAGAVYIYHG-SG 609
λ	562 SGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRV 621
qo	610 KTIREAYAQRIPSGGDGKTLKFFGQSIHGEMDLNGDGLTDVTIGGLGGAALFWARDVAVV 669
ò	622 KAIMEFNPREVARNVPECNDQVVKGKEAGEVRVCLHVQ-KSTRDRLREGQIQSVVTYD 678
쇰	670 KUTWNFEPNKUNIQKKOCRVEGKETVCINATMCPHVKLKSKEDSIYEADLQYR 722
à	679 LALDSGRPHSRAVFNET TANSTRRQTQVLGLTQTCETLKLQLPNCI
g	723 VTLDSLRQISRSFFSGTQERKIQRNITVRESECIRHSFYMLDK 765
à	GNLR
qq	766 HDFQDSVRVTLDFNLT-DPENGPVLDDALPNSVHEHIPFAKDCGNKERCISDLTL 819
à	784 TFSFMSLDCLVVGGPRE-FNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQR 842
qq	820 NVSTTEKSLLIVKSQHDKFNVSLTVKNKGDSAYNTRTVVQHSPNLIFSGIEEIQKD 875
à	843 SWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLL-LKAN 901
qq	876SCESN
ò	902 VISENNMPRINKTEFQLELPVKYAVYMVVISHGVSTKYLNFTASENISR 950
Db	923 SDSEEPLESLNDNEVNISIPVKYEVGLQFYSSASEHHISVAANETIPEFINSTEDIGN 980
ò	951 VMOHQYQUSNLGQRSLPISLVFLVPVRLNQTVIWD8P 987
. qa	981 EINVEYTIRKRGHFPMPELQLSISFPNLTADGYPVLYPIGWSSSDNVNCRPRSL 1034
ò	988QVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAV 1027
qq	1035 BDPFGINSGKKATISKSEVLKRGTIQDCSSTCGVATITCSLLP 1077
ò	WYIKT
ag D	1078 SDLSQVNVSLLLWKPTF-IRAHFSSLNLTLRGELKSENSSLTLSSSN 1123
ò	1079 VFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKR 1136
qq	1124RKRELAIQISKDGLPGRVPLWVILLSAFAĞLLILMLILALWKIĞFFKR 1172
à	1137 QYKDMMSE 1144

1173 PLKKKMEK 1180 a Search completed: November 25, 2003, 14:17:21 Job time : 13.3033 secs

QBMKF4 Q9WUF8 Q8TES5 Q9BPQ8	753.5 12.7 780 13	686.5 11.5 823 4 QGWII8 686.5 11.5 823 11 Q8CE94 683 11.5 1032 11 Q61989 651.5 10.9 257 11 Q61270 63.3 10.9 257 11 Q61270	641.5 10.8 11 0211D3 619.5 10.4 1041 5 09UB90 614.5 10.3 1041 5 076378	589 9.9 1034 13 Q98117 579.5 9.7 1054 5 Q9U6S1 550 9.2 1033 13 042598	530 8.9 974 11 530 8.9 974 11	525 8.8 1047 11 QOCCUS 526 8.8 1047 6 QOMZD6 525 5 8 8 1007 6 OOCK48	514.5 8.6 1034 509.5 8.6 1034 506.5 8.5 1012	491.5 8.3 1049 5 Q8SY51 482.5 8.1 604 11 Q8BQ25 475 8.0 833 5 Q9BPQ7 469 5 7 9 1036 6 O9THQ4	ALIGNMENTS	RESULT 1	130		Integrin beta 2 alpha subunit. Rattus norvegicus (Rat).	OC Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi; OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus. OX NCBI TaxID=10116; DN 1:1	RA Fathallah D.M. Sr., Zerria K. Jr.; RA Fathallah D.M. Sr., Zerria K. Jr.; RT "Cloning of the rat CD11b cDNA sequence.";	RL Submitted (MAY-2000) to the EMBL/GenBank/DDBJ databases. PR EMBL, AF26593; AAF81280.1;	DR InterPro; IPR0020413; Integrin_alpha. DR InterPro; IPR02035; VWF_A.	DR Proms; Proledk; 5.	DR PRINTS; PRO1185; INTEGRINA.	DR SMART; SM00191; Int alpha; 5.	DR PROSTITE; PRO1927; VWA; I.		Query Match 74.9%; Score 4459; DB 11; Length 1151; Best Local Similarity 73.5%; Pred. No. 3.3e-317; Matches 847; Conservative 144; Mismatches 160; Indels 2; Gaps 2;	Qy 1 MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGGSVVQLQGSRVVVGAPQEIVAANQR 60	Db 1 MTLKVLLATVLTLCHGFNLDTENPMTFQENASGFGQSVIQLGETRVVVAAPQEVKAVNQT 60
GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.	OM protein - protein search, using sw model	Run on: November 25, 2003, 14:11:54; Search time 33.5727 Seconds (without alignments) 8862.397 Million cell updates/sec	Title: US-09-902-481B-1 Perfect score: 5956 Sequence: 1 MALRVLLLTALTLCHGFNLDFKRQYKDMMSEGGPPGAEPQ 1153	Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5	Searched: 830525 seqs, 258052604 residues	Total number of hits satisfying chosen parameters: 830525	Minimum DB seq length: 0 Maximum DB seq length: 200000000	Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries	Λ.	3: Sp_rungi:* 4: Sp_human:* 5: Sp_invertebrate:*		sp_phage:* sp_plant:*	11: Sp_vounc: 12: sp_virus:* 13: sp_vertebrate:*	·	Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed,	of the total score distribut	* SUMMAKIES Query	Score Match Length DB ID Descript	. 4459 74.9 1151 11 Q9J130 Q9j13 3976.5 66.8 1036 11 Q8CA73 Q6ca7	3824.5 64.2 920 6 Q28984 3514 59.0 1169 4 Q8IVA6	3352.5 56.3 1169 11 Q9QXH4 Q9qxh 3282.5 55.1 1161 11 Q9QYE7 Q9qye	1545 25.9 1161 11 O9WIV4 O9WIV 1534.5 25.8 1160 11 O9R200 O9P20	Q98TF1 Q98TF0 Q98TF0 Q96HB1 Q96HB1 Q96HB1 Q8HZV0 Q8HZV0 D0	1171.5 19.7 1125.5 18.9	1049 17.6 1038 11 Q8BS01 Q8bs01 mus mus

Qy 1141 MMSEGGPPGAEPQ 1153	RESULT 2 Q8CA73 ID Q8CA73 AC Q8CA73; PRELIMINARY; PRT; 1036 AA. AC Q8CA73; DT 01-MAR-2003 (TrEMBLrel. 23, Created) DT 01-MAR-2003 (TrEMBLrel. 23, Last sequence update) DT 01-MAR-2003 (TrEMBLrel. 23, Last annotation update)	, , , , , ,	JENCE FI		RL Nature 420:563-573(2002).  DR EMBL; AK03944; BAC30350.1;  SQ SEQUENCE 1036 AA; 115126 MW; 4F4F39BF1E188E77 CRC64;	Query Match 66.8%; Score 3976.5; DB 11; Length 1036; Best Local Similarity 66.8%; Pred. No. 5.7e-282; Matches 771; Conservative 120; Mismatches 144; Indels 119; Gaps 2;	QY 1 MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGGSVVQLQGSRVVVGAPQEIVAANQR 60	QY 61 GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK 120	QY 121 GLCFLFGSNLRQOPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL 180  121 GLCYLFGSNLLRPPQQFPEALRECPQQESDIVFLIDGSGSINNIDFQKMKEFVSTVMEQF 180	QY 181 KKSKTLFSLMQYSEEFRIHFTFKEPQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN 240  181 KKSKTLFSLMQYSDEFRIHFTFNDFKRNPSPRSHVSPIKQLNGRTKTASGIRKVVRELFH 240	Qy 241 ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL 300 241 KTNGARENAAKILVVITDGEKFGDPLDYKDVIPEADRAGVIRYVIGVGNAFNKPQSRREL 300	Qy 301 NTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT 360 11	Qy 361 SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINWTRVDSDMNDAYLGYAAAIILRNRVQSLV 420  361 SNGPLLGSVGSFDWAGGAFLYTSKOKVTFINTTRVDSDMNDAYLGYASAVILRNRVQSLV 420	Oy 421 LGAPRYOHIGLVAMFRONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP 480 421 LGAPRYQHIGLVVMFRENFGTWEPHTSIKG	481 HYYEQTRGGOVSVCPLPRGQRARWQCDAVLYGEQGOPWGRFGAALTVLGDVNGDKLTDVA	451	Db 451SQRIIGAHFSPGLQXFGQSLSGGKDLTMDGLM 482
61 GSLYQCDXSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPOLLACGPTVHQTCSENTVVK 120  -	121 GLCFLFGSNLRQOPOKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL 180	ITNGARKNAFKILVVI   DGEKFGDPLGYEDVI PEADREGVIRYVI GVGDAFRSEKSRQEL 	NTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHBMSQEGFSAAIT  -	361 SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV 420 	421 LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP 480 	481 HYYEQTRGGOVSVCPLPRGGRARWQCDAVLYGEQGOPWGRFGAALTVLGDVNGDKLTDVA 540  -  -  -               - - - - - - - -	541 IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV 600        :: :	601 DLTVGAQCHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK 660 	661 STRDRLREGOIGSVYTYDLALDSGRPHSRAVFNETTRNOTOVLGLTQTCETLKLQLP 720 	721 NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNGNDNICODD 780 	781 LSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFPPLDLSYRKVSTLQNQRS 840               ::               :	841 QRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA 900 ::   :     :	901 NVTSENNMPRTNKTEFQLELPVKYAVYMVYSHGVSTKYLNFTASENTSRVMOHQYQVSN 960 	961 LGGRSLPISLVFLVPVRLNQTVIMDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV 1020 	VNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDMYIKTSHNHLLIVSTABILFNDSVF 108	LNCSVAVCKRIQCDIPSFNSKEIFNVTLQGNLLFDWYIETSHDHLLLVSTAEILFNDSAF	1081 TLLEGGGEFFKQYKI 1140 

1023

902 963 962

904

```
CDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFL 125
LLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LLLLGFVSCLGFNLDAEKLTHFHMDGAEFGHSVLQYDSSWVVVGAPKEIKATNQIGGLYK
                                                                                                                                                                    RLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTS
                                                                                    ENNMPRINKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQ
                                                                                                                                                                                                                           RSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNC
                                                                                                                                                                                                                                                     SIAVCQRIQCDI PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLL
                                                                                                                                                                                                                                                                                                                                   19; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Euteleostomi;
Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Huang X., Gorski K., Tong C., Rattis F.-M., Tseng S.-Y., Pardoll Tsuchiya H.;
Tsuchiya H.;
Tsuchiya H.;
Tsuchiya H.;
Submitted Genes Selectively Expressed by Dendritic Cells.";
Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AF211864; AAF23492.1; -.
HSSP; P11215; 1BHQ.
MGD; MGI:96609; Itgax.
InterPro; IPR000413; Integrin_alpha.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 11; Length 1169;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
Leukocyte adhesion glycoprotein p150,95 alpha integrin subunit.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 3352.5; DB 11; Lengt
Pred. No. 3.5e-236;
8; Mismatches 307; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1169 AA; 129150 MW; C616412033C219A6 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus (Mouse).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; E
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae;
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT; 1169 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRINTS; PRO1185; INTEGRINA.
PRINTS; PRO0453; VWFADOMAIN.
SMART; SMO0191; Int alpha; 4.
SMART; SMO0127; VWA; 1.
PROSITE; PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 657; Conservative 168;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pfam; PF01839; FG-GAP; 5.
Pfam; PF00357; integrin_A; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    56.3%;
57.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00092; vwa; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          E 1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              È 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Integrin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                             905
                                                                                                                                                                                                                           964
                                                                                                                                                                                                                                                                                                            1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                               845
                                                                                                                                                                                     903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q9QXH4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      090XH4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SO DRANGE DE LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA CONTRA LA 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                               셤
                                                                                                                                                                               a
                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                             ઠે
                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                         4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LLGSRDLÓSSVTLDLALDPGRLSPRATFQETRNRSLSRVRVLGLKAHCENFNLLLPSCVE 724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSIT 784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DSVTPITLRLNFTLVGKPLLAFRNLRPMLAADAQRYFTASLPFEKNCGADHICQDNLGIS 784
                                                                                                                                                                                                                                                                                                                                                                                                               64
                                                                                                                                                                                                                                                                                                                                                                                                                                                   67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             125 LFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  366 VLGAVGSPTWSGGAFLYPPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVQSLVLGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RYOHIGLVAMFRONTGMWESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             486 OTRGGOVSVCPLPRGWR RWWCDAVLYGEOGHPWGRFGAALTVLGDVNGDKLTDVVIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               545 GEKENRGAVYLFHGVLGPSISPSHSQRIAGSQLSSRLQYFGQALSGGQDLTQDGLVDLAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      605 GAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RLREGQI QSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIE
                                                                                                                                                                                                                                                                                                                                                                                                               VLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLY
                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                               Length 1169;
01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
Integrin, alpha X (Antigen CD11C (p150), alpha polypeptide)
Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                          %; Score 3514; DB 4; Length 1
%; Pred. No. 5.2e-248;
138; Mismatches 295; Indels
                                                                                                                                                                                                                       Straubberg R.;
Submitted (SEP-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; BC038337; AAH38237.1; -.
SEQUENCE 1169 AA; 128521 MW; A178484FEFC79EB6 CRC64;
                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 61.5%;
Matches 702; Conservative 1.
                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                           NCBI_TaxID=9606;
                                                                                                                                                                                                        TISSUE=Blood;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           상 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

<u>.</u>

65 68

```
1142 FKRQYKEMLEE 1152
                                                                                                                                                                                                                                                                                  ntegrin.
                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 423
                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  363
                                                                                                                                                                                                                                                                                                                  Local
                                         Q9QYE7
                                                                                                                                                                                                                                                                                                                 Best Loca
Matches
                        RESULT 6
Q9QYE7
   셤
                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DP
                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HOYOVSNIGORSIPISLVFLVPVRINQTVIWDRPQVTPSENLSSTCHTKERLPSHSDFLA 1013
                                                         245
                                                                                       305
                                                                                                                                                                                    485
                                                                                                                                                                                                                                                                                                                725
                                                                                                                                                                                                                                                                                                                                               785
                                         187
                                                                       247
                                                                                                      307
                                                                                                                       365
                                                                                                                                                     425
                                                                                                                                                                                                                   545
                                                                                                                                                                                                                                   546
                                                                                                                                                                                                                                                  605
                                                                                                                                                                                                                                                                                 665
                                                                                                                                                                                                                                                                                                                                                                               836
                                                                                                                                                                                                                                                                                                                                                                                                                            902
                                                                                                                                                                                                                                                                                                                                                                                                                                                     427
                                                                                                                                                                                                    487
                                                                                                                                                                                                                                                                 909
                                                                                                                                                                                                                                                                                                 999
                                                                                                                                                                                                                                                                                                                                724
                                                                                                                                                                                                                                                                                                                                                              784
                                                                                                                                                                                                                                                                                                                                                                                             844
                       FGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKT
                                                                CGYHTGNCEPISLQVPPBAVNISLGLSLAAATNPSWLLACGPTVHHTCRENIYLTGLCFL
                                                                                              KPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPL
                                                                                                                                                                                                                                                 EEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGODLTMDGLVDLTVG
                                                                                                                                                                                                                                                         AOGHVILLRSQPVLRVKAIMEFNPREVARNVFECNDOVVKGKEAGEVRVCLHVQKSTRDR
                                                                                                                                                                                                                                                                                         SKGRVLLLRTRPILRAVSPTVHFTPAEISRSVFECQEQVAPEQILSDATVCLHIHESPKTQ
                                                                                                                                                                                                                                                                                                                                                        GFPDLKTLVVGSDLELNVDVTVSNDGEDSYGTTVTLFYPVGLSFRRVAEGGVFLRKKEDQ
                                                                                                                                                                                                                                                                                                                                                                                                                                           KLLLKANVTSENNMPRTNKTEPQLELPVKYAVYMVVTSHGVSTKYLNFTASE-NTSRVMQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ::|:||::|||| ::|:||| HWQKSPVLDCSIADCLHLRCDIPSLGILDELYFILKGNLSFGWISQTLQKKVLLLSEAEI
                                  129 LSSSFKQS-QNFPTAQQBCPKQDQDIVFLIDGSGSISSTDFEKMLDFVKAVMSQLQRPST
                                                       LFSLMOYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNGA
                                                                                      RKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIAS
                                                                                                                                                    LSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPR
                                                                                                                                                                                   YQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQ
                                                                                                                                                                                                                  TRGGOVSVCPLPRGQRARMQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPG
                                                                                                                                                                                                                                                                                                                                               PVSPIVLRINFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITF
                                                                                                                                                                                                                                                                                                                                                                            SFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQ-----
                                                                                                                                                                                                                                                                                                                                                                                                             --NQRSQRSWRLACESAS$TEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1014 ELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TFNTSVYSQLPGQEAFLRAQTKTVLEMYKVHNPVPLIVGSSVGGLLLLAIITALLYKAGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FKRQYKDMMSE 1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>:</u>
=
=
                                                                                                                                     308
                                                                                                                                                                    368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1134
         69
                                                                      188
                                                                                      246
                                                                                                     248
                                                                                                                     306
                                                                                                                                                    366
                                                                                                                                                                                   426
                                                                                                                                                                                                   428
                                                                                                                                                                                                                   486
                                                                                                                                                                                                                                 488
                                                                                                                                                                                                                                                 546
                                                                                                                                                                                                                                                                547
                                                                                                                                                                                                                                                                                 909
                                                                                                                                                                                                                                                                                               607
                                                                                                                                                                                                                                                                                                                999
                                                                                                                                                                                                                                                                                                                               667
                                                                                                                                                                                                                                                                                                                                                              725
                                                                                                                                                                                                                                                                                                                                                                             984
                                                                                                                                                                                                                                                                                                                                                                                             785
                                                                                                                                                                                                                                                                                                                                                                                                             837
                                                                                                                                                                                                                                                                                                                                                                                                                            845
                                                                                                                                                                                                                                                                                                                                                                                                                                            895
                                                                                                                                                                                                                                                                                                                                                                                                                                                           903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           963
                                      유
                                                                   g
                                                                                                  8
                                                                                                                                OD
                                                                                                                                                   ò
                                                                                                                                                              g
                                                                                                                                                                             ò
                                                                                                                                                                                               Op
                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                             쉽
                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                8 6
                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                           음
                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                            යි ර
                                                                                                                                                                                                                                                                                                                                                                                                                       a
                       ò
                                                      ò
                                                                                     ઠે
                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                           & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

```
10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     123 CFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKK 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               63 LYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   183 SKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               185 TSTLFSLMQYSNILKTHFTFTEFKNILDPQSLVDPIVQLQGLTYTATGIRTVMEELFHSK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 245 NGSRKSAKKILLVITDGQKYRDPLEYSDVIPAADKAGIIRYAIGVGDAFQEPTALKELNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5 VLLLT--ALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6 VILLCGWVLASCHGSNLDVEEPIVFREDAASFGQTVVQFGGGSRLVVGAPLEAVAVNQTGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           66 LYDCAPATGMCQPIVLRSPLEAVNMSLGLSLVTATNNAQLLACGPTAQRACVKNMYAKGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAY-2003 (TrEMBLrel. 23, Last annotation update)
Alpha D integrin.
Rattus norvegicus (Rat).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mmmmalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 11; Length 1161;
                                                                                                                                                                                                                                                                                                              STRAIN=Sprague-Dawley;
A O'Brien M.W., VanderVieren M., Kilgannon P.D., Dietsch G., O'Brien M.W., VanderVieren M., Kilgannon P.D., Dietsch G., Callatin W.M.; VanderVieren M., Kilgannon P.D., Dietsch G., Callatin W.M.; and alpha D, a novel beta 2 integrin.";
I "Cloning of rat alpha D, a novel beta 2 integrin.";
I "Cloning of rat alpha D, a novel beta 2 integrin.";
I "Submitted (AUG-1997) to the EMBL/GenBank/DDBJ databases.
REMBL; AF021334; AFA21241.1;
REMBL; PR00413; INFO2013; VWFA.
REMBL; PF004839; PGG-GAP; S.
REMM; PF00082; VWA; 1.
REMBL; PR00453; VWFADOMAIN.
REMBLYS; PR00453; VWFADOMAIN.
                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11 Similarity 58.1%; Pred. No. 4.7e-231;
663; Conservative 158; Mismatches 306; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1161 AA; 126600 MW; 2258491A984A705E CRC64;
  $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 55.1%; Score 3282.5; 58.1%; Pred. No. 4.7e
PRT; 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SMART; SM00191; Int alpha; 4.
SMART; SM00327; VWA; 1.
PRELIMINARY;
                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                    NCBI_TaxID=10116;
```

39;

25 59 172 175 231 235 281 344 341

284

115

112

g õ a ò qq

a ò

ò

6 6 6

g

8 6 ò

8 è

```
DGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGAL-KSTSCSIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | : : | | | | | : | : | | | | | SGNTSITP-DKSCLDFHFHFPICIQDLISPINVSLNFSLLEEEGTPRDQKGRAMQPILRP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIHTV-TKEIPFEKNCGEDKKCEANLTLSSPARS-----GPLRLMSSASLAVEWTLSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLV---GTPLSAFGN-LRPVLAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DAQRLFTALFPEKNCGNDNI CQDDLSITFSFMSLDCLVVGGP-----REFNVTVTVRN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 232 RKWVRELFNITNGARKWAFKILVVITDGEKFGDPLGYEDVIPEADREG-----VIRYV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LGYAAA-IILRNRVQSLVLGAPRYQHIGLVAMFR--QNTGMWESNANVKGTQIGAYFGAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  576 IRMFGRSIHGVKDLGGDRLADVVVGPEGRVVVLSSRPVVDVVTELSFSPEEIPVHEVECS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DQVVKGKEAG-EVRVCLHVQKSTRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YSAREEQKHGVKLKACFRIKPLTPQ--FQGRLLANLSYTLQLDGHRMRSRGLFPDGSHEL
                                                                                                                                                                                                                                                                                                                   CSENTYVKGLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            285 IGVGDAFRSEKSRQELNTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MALRV----LLLTALTL---CHGFNLDTENAMTFQENA-RGFGQSVVQLQGSRVVVGAPQ
                                                                                                                                                                                                                                                                                                                                                                     EIVAANQRGSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAAATTSPPQLLACGPTVHQT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  173 VSTVMEQLKKSKTLFSLMQYSEEFRIHFTFKEF-QNNPNPRSLVKPITQLLGRTHTATGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SFEHEMSOEGFSAAITSNGPLLSTVGSYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAY
                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                     108;
                                                                                                                                                                                                              Length 1161;
                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                   1161 AA; 128240 MW; 86B102F7B209E431 CRC64;
                                                                                                                                                                                                          Match
Local Similarity 34.0%; Pred. No. 8.35-20.,
Local Similarity 21.0%; Mismatches 462;
Les 407; Conservative 219; Mismatches 462;
                                 PEGEN, PF00092; vwa; 1. — PERINTS; PR01185; INTEGRINA. PRINTS; PR01185; INTEGRINA. SMART; SM00191; Int. alpha; 5. SMART; SM0037; VWA; 1. PR0SITE; PS00242; INTEGRIN_ALPHA; 1. PROSITE; PS50234; VWFA; 11. PROSITE; PS60242; INTEGRIN_ALPHA; 1. SEQUENCE 1161 AA; 128240 MW; 06B10
                  integrin_A; 1.
PG-GAP;
                PF00357; integr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              641
                                                                                                                                                                                                                                                                                                                                                                             23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               116
                                                                                                                                                                                                                                     Best Loca
Matches
                                                                                                                                                                                                                  Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   È
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ૪
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                        윱
                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     957
                                                                                                                                                                                                                                                          722
                                                                                                                                                                                                                                                                                                                                      782
                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                     842
                                                                                                                                                                                                                                                                                                                                                                                                                                                          839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                         543
                                                                                                 602
                                                                                                                                      603
                                                                                                                                                                           662
                                                                                                                                                                                                                663
                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                    604 AVGAQGHVLLIRSLPLLKVELSIRFAPMEVAKAVYQCWERTPTVLEAGEATVCLTVHKGS
                                                                                                                                                                                                                                                                              I EDPVSPI VLRLNFSL VGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNI CQDDLS
                                                                                                                                                                                                                                                                                                                                                             ITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQR
                                                                                                                                                                                                                                                                                                                                                                                                                                         SWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TSENNMPRINKTEFOLELPVKYAVYMVTSHGVSTKYLNFTASENTSR-VMQHQYQVSNL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GORSLPISLVFLVPVRUNOTVIWDRPOVTFSENLSS-TCHTKERLPSHSDFLAELRKAPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VNCSIAVCORIOCDIPPFGIQEBFNATLKGNLSFDWYIKTSHNHLLIVSTABILFNDSVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TLIPGOGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIG
                                           APGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDL
                                                                                                                         TVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKST
                                                                                                                                                                                                                                                          ALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus;musculus (Mouse).
Sukażycze, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia; Butheria, Rodentia; Sciurognathi, Muridae, Murinae, Mus
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT; 1161 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MGD; MGI:96606; Itgal.
InterPro; IPR000413; Integrin_alpha
InterPro; IPR002035; VWF_A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
STRAIN=DBA/2J; TISSUE=Spleen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-NOV-1999 (TrEMBLrel. 12, 01-NOV-1999 (TrEMBLrel. 12, 01-JUN-2002 (TrEMBLrel. 21,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ma R.Z., Teuscher C.;
Submitted (MAY-1998) to the
EMBL; AF065902; AAD25885.1;
HSSP; P20701; 1LFA.
                                                                                                                                                                                                                                                            RDRLREGQIQSVVTYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |:
ML 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Integrin alpha L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MM 1142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1135
                                                                                                                                        544
                                                                                                                                                                                                                                                                                                   664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       928
                                                                                                   543
                                                                                                                                                                               603
                                                                                                                                                                                                                                                              663
                                                                                                                                                                                                                                                                                                                                                                             722
                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  903
                                                                                                                                                                                                                                                                                                                                          723
                                                                                                                                                                                                                                                                                                                                                                                                                       783
                                                              485
                      183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q9WTV4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              O9WTV4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VTW60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ID ACCOCCOS OR REPORT OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE P
```

403

460 461 520 518 580 575 640 635 669 693 755 752 809 804 868

173 VSTVMEQLKKSKTLFELMQYSEEFRIHFTFKEF-QNNPNPRSLVKPITQLLGRTHTATGI 231	GRADIUGD WIGHT DAY GAPCEED WRAYLENGESGISPERGRIAGSKIEPE FGAALTULD WIGH DAY GAPCEED WRAYLENGESGISPERGRIAGSKIEPE FGAALTULD WIGH DE WELLENGESGISPERGRIAGSKIEPE FGAALTULD WIGH DE WELLENGESGISPERGRIAGSKIEPE FGAALTULD WIGH DE WELLENGESGISPERGRIAGSKIEPE FGAALTULD WIGH DE WELLENGESGISPERGRIAGSKIEPE FGAALTULD WAS TRED THE WEST STAND WAS TRED WAS	JT 9 71 Q98TF1 PRELIMINARY; PRT; 1196 AA. Q98TF1;
8 4 8 6 8 6 8 6 8 6	8 4 8 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	RESULT Q98TF1 ID Q9 AC Q9
09 869 HPIFPENSEVTENITEDVDSKABLGNKLLLKANVTSEN-TEGSSLLTKTLKCNVS 859  09 869 HPIFPENSEVTENITEDVDSKABLGNKLLLKANVTSEN-TMRTENTERFOLELPVKYAVY 927  1	PREJ.   1160 AA.	OY 113 CSENTYVKGLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEF 172   :     :     :     :     :

700

760 756 820

us-09-902-481b-1.rspt

```
1093 H-------RSQTEVKVE-FVVPPSLMLIVCTGAVGFFFLIIIFLLLKCGFFKR 1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            985 FISSYHQIIMCLLNKHLLFFSPELSAVQQVRSTGWSLREVEC-SQF--DLNKSSAVHFNL
ASLKDINGDGLSDVAVGAPLE--NEGVVYIXLGDRTHGINPELTPQRISVQSVLPGLQOF
                                                                                                                                                                                                  NAFNAFULTSCFTVTERTSS---TGSLEKKLNVSLNLNVDVVRGMSRGFFDQSSVSSRTL
                                                                                                                                                                                                                                                                                              QSVLLDSGSSCFNFSIFMLRCVADTVSPLKIRMNFS--QTEMLS-GNSVAVLDVHSRTE
                                                                                                                                                                                                                                                                                                                                                                                              ENVEVPFORNCNSNNSCVADLKINFSFTN-NTLVVENQAHFTVQVSLANPGDDSYNTSIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              881 NITFDV---DSKASLGNKLLLKANVISENNMPRINKIEFQLELPVKYAVYMVVISHGV-S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPVR----------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ------LNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1026 AVCORIQ-----CDIPFFGIQEE--FNATLKGNLSFDWYIKTSHNHLLIVSTAEILFND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIV-GSSVGGLLLLALITAALYKLGFFKR
                                                                         GOSLSGGODLIMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVV
                                                                                                KGKEAGEVRVCLHVQKSTRDRLREGQIQSV - - VTYDLALDSGRPHSRAVFNETKNSTR - -
                                                                                                                                                                                                                                                                    RQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRL
                                                                                                                                                                                                                                                                                                                                                                  FTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  821 FFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cyprinus carpio (Common carp).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Cyprinus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            carp.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
TSUSUB-PREPARED N.A.
Kimura M., Fujiki K., Nakao M.;
"Molecular cloning of a leukocyte integrin from the common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the Common 's
"Molecular cloning of a leukocyte integrin from the 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (TrEMBLrel. 17, Created)
(TrEMBLrel. 17, Last sequence update)
(TrEMBLrel. 23, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR001969; Aspprotease site.
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002035; VWF_A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1137 QYKD 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1140 NRPD 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cyprinidae; Cypr
NCBI_TaxID=7962;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-JUN-2001 (
01-JUN-2001 (
01-MAR-2003 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1078
                                                                                                                                                                                                                                                                                                                         200
                                                                                                                                                                              645
                                                                                                                                                                                                                            643
                                                                                                                                                                                                                                                                         701
                                                                                                                                                                                                                                                                                                                                                                       191
                                                                                                                                                                                                                                                                                                                                                                                                                     757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q98TF0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         엄
                                                               ु
                                                                                                                    g
                                                                                                                                                                            ઠે
                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                  용
                                                                                                                                                                                                                                                                                                                                                        ⋧
                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    471 STDLVLIGAPHYYEQTRGGOVSVCPLPRGQRARWQCDAVLYGEQ-----GQPWGRFGAAL 525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   352 QEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMN-DAYLGYAAAI 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               411 ILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNG 470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHS-QRIAGSKLSPRLQYF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3 LRVLLLTALTLCHGFNLDTENAMTFQENARG-FGQSVVQLQ-GSR--VVVGAPQEIVAAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      59 ORGSLYQCDYSTGSCEPIRLQVP----VEAVNMSLGLSLAATTSPPQLLACGPTVHQTCS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STGEMYSCTADLQSCQ--RLQRPGSESVRFFGMSAAVSSAALTS-----CSPYFPHECD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ENTYVKGLCFLFGSNLRQOPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TVMEQLKKSKTLFSLMOYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VRELFN-ITNGARKNAFKILVVITDGEKFGDPLGYED--VIPEADREGVIRYVIGVGDAF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RSEKSRQELNTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   --KVDLIELTOLASEPKRNNTFYIKDYSGLKGLLDNLOKKIYNIEGSVDAQGRDRQKELS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                     Vertebrata; Euteleostomi;
Ostariophysi; Cypriniformes;
                                                                                                                                                                                                                                                                                                   TISSUE-Peritoneal exudate cells;
Kimura M., Nakao M., Miural C., Fujiki K., Yano T.;
Kimura M., Nakao M., Miural C., Fujiki K., Yano T.;
Molecular cloning of a leukocyte integrin from the common carp.";
Submitted (SEP-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AB048536; BAB39134.1;
HSSP; P20701; LIPA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1196;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1196 AA; 132477 MW; 9369C807E7DCA53B CRC64;
          Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1419; DB 13;
Pred. No. 1.5e-94;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            228; Mismatches 455;
                                                                                                     CIAI.

Cyprinus carpio (Common carp).

Cyprinus carpio (Common carp).

Bukaryota; Metazoa; Chordata; Craniata; Nactinopterygii; Neopterygii; Teleostei; Cyprinidae; Cyprinus.

NCBI_TaxID=7962;
                                                                                                                                                                                                                                                                                                                                                                                                                                              Incerpro; IPR001969; Aspprotease site.
Interpro; IPR002035; VWF A.
Interpro; IPR02035; VWF A.
Ffam; PF01839; FG-GAP; 5-
Pfam; PF00357; integrin A;
Pfam; PF00357; integrin A;
Pfam; PF00327; vwa; 1.
PRINTS; PR01453; INTEGRINA.
PRINTS; PR0453; VWFADOMAIN.
SWART; SM00191; Inte alpha; 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROTEASE; 1.
          (TrEMBLrel. 17, (TrEMBLrel. 17, (TrEMBLrel. 23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DSDFLLVGAPLFYQSQ-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS00141; ASP PROT
PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 31.39
Matches 377; Conservative
                                                                                                                                                                                                                                                                            FROM N.A.
          01-JUN-2001 (
01-JUN-2001 (
01-MAR-2003 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
```

ઠે g ò 셤 δ 셤

ઠે g 유

õ

**상** 원

g

ò

g

ò

임

ò

õ

1077

776

984

936 924

867

815 880

7. X.

Db 806 NTSIVLH  Qy 876 SEVTFNI  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1018	1135	5 3	01-DEC-2001 01-DEC-2001 01-MAR-2003	DE Hypothetical pro OS Homo sapiens (Hu OC Eukaryota; Metaz OC Mammalia; Euther				DR SMART; SMO0191; DR SMART; SMO0327; DR PROSITE; PS00242		Query Match Best Local S Matches 381	<b>.</b>	C 49	Oy 115 ENTYVKG
Pfam; PF001839; FG-GAP; 5. Pfam; PF00183; integrin_A; 1. Pfam; PF00092; vwa; 1. PR010185; INTEGRINA. PRINTS; PR00185; INTEGRINA. SWART; SW00191; Int_alpha; 5. SWART; SW00191; ASP_PROFERSE; 1. PROSITE; PS00141; ASP_PROFERSE; 1. PROSITE; PS00141; WAF, 1. SEQUENCE 1187 AA; 131778 MW; 85EDC7CA8B6B1C59 CRC64; Ouery Match Best Local Similarity 31.4%; Pred; No. 7:5e-91; Matches 379; Conservative 210; Mismatches 460; Indels 157; Gaps 43;	3 LRVLLLTALTLCHGFNLDTENAMTFQENARG-FGQSVVQLQ-GSRVVVGAPQEIVAAN 58   ::	75 SAĞEMYSCTADLQSCKRLÖRPGSESVRFFGMSAAVSSAALTSCSPYPAHECD 126 115 ENTYVKGLCFLFGSNLRQOPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVS 174 117	175 TVMEQLKKSKTLFSLMOYSEEFRIHFTFKEFONNPNPRSLVKPITQLLGRTHTATGIRKV 234	235 VRELFN-ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAF 291 :::   ::	292 RSEKSRQELNTIASKPPRDHVFQVNNFBALKTIQNQLREKIFAIEGTQTGSSSSFEHEMS 351 298KVDLTTLTQLAABPRLWNTFYIQEYNGLKGLLDNLQKKIYNIEGSKBAHGRDRQKELS 355	352 QEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDWNDAYLGYAA 408 	409 AIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDS 468 : : :	469 NGSTDLVLIGAPHYYE-ONGGCGOVSVCPLPRGQRARWQCDAVLYGEQGQFWGRFGAA 524 :   :	525 LTVLGDVNGDKLTDVALGAPGEEDNRGAVYLFHGTSGSGISPSHS-ORIAGSKLSPRLQY 583 52 LASLKDLNGDGLSDVAVGAPLENEGVVYIYLGDGTHGINPEHAPQRIPARSVLPGLQO 579	584 FGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQV 643 	644 VKGKEAGBVRVCLHVQKSTRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTR- 700 	701 -RQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAE 755 	756 DAQRLFTALFPFEXNCGNDNICQDDLSITFSFMSLDCLVVGGFREFNVTVTVRNDGEDSY 815	816 RTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGALKSTSCSINHPIFPEN 875
OR OR SOR SOR MARGO	ò a ò	a & a	\$ B	ζ, q <sub>0</sub>	oy G	o do	O Op	\$ g	<u>ک</u> ۾	% ଶ	ò a	\$ B	ço q	ò

```
38;
                                                                                                                                                                                            TCHTKERLPSHSDFLAELRKAPVVNC-----SIAVCQ 1029
                                                                                                                                                                                                                                                                          PFFGIQEEFNATLKGNL-----SFDWYIKTSHNHLLIVSTAEILF 1075
                                                                                                                                                                                                                                                                                                 | | ::: | | | :: | | SSISTGEIFRSSV--NLMAEAVLQNVKEYESKYSFY-EFRRDHVFNIS-AELNF 1068
                                                                                                                                                                                                                                                                                                                                                      LLPG-QGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFF 1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCS 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVS 174
                                                             KYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQVTF 991
                                                                                                                                         ------107
HYPEGLSLSKFDAIKPSRTR-----SSCGDRDSGATNRTTCSINLPVYRSG 857
                                    ITFDV----DSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVVTS 932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TLCHGF-----NLDTENAMTFQ--ENARGFGOSVVQLQGSRVVVGAPQEI 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22.9%; Score 1361; DB 4; Length 1086;
city 32.0%; Pred. No. 2.3e-90;
nservative 188; Mismatches 436; Indels 184; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            luman).
120a; Chordata; Craniata; Vertebrata; Euteleostomi;
17ia; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cotein.
5 AA; 119223 MW; F6FF2546EBC632F9 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -2001) to the EMBL/GenBank/DDBJ databases.
AAH08777.1; -. AAH08777.1; -. O00413; Integrin_alpha.
02035; VWF A. FG-GAP; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBLrel. 19, Created)
EMBLrel. 19, Last sequence update)
EMBLrel. 23, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT; 1086 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2; INTEGRIN ALPHA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           vwa; 1.
5; INTEGRINA.
; Int_alpha; 5.
; VWA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            otein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ä
```

us-09-902-481b-1.rspt

```
237
                                                                                                                                                                                                                                                                                                                                          486
                                                                                                                                                                                                                                                                                                                                                         297
                                                                                                                                                                                                                                                                                                                                                                                      354
                                                                                                                                                                                                                                                                                                                                                                                                                    411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            586
                                                                                                                                                                                                                                                 310
                                                                                                                                                                                                                                                                117
                                                                                                                                                                                                                                                                               370
                                                                                                                                                                                                                                                                                              177
                                                                                                                                                                                                                                                                                                             428
                                                                                                                                                                                                                                                                                                                                                                        546
                                                                                                                                                                                                                                                                                                                                                                                                     909
                                                                                                                                                                                                                                                                                                                                                                                                                                   663
                                                                                                                                                                                                                                                                                                                                                                                                                                                471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             778
                                                                                                                                                                                                                                                                                                                                                    <u>ል</u> ይ
                                                                                                                                                                                                                                                                                                                                                                                  6 8
                                                                                                                                                                                                                                                                                                                                                                                                                 8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                           $ 8 $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
셤
                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                      <del>ያ</del> ይ
                                                                                                                                                                                                    셤
                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1003
                                                                                                                                                                                                                                                                                                                                                                                                                                    989 VTFSENLSSTCHTK--ERLPSHSD--FLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEF 1044
                                                                                                                                                                                                                                                  707
                                                                                                                                                                                                                                                                                                                                                                                                                                                   945
                                                                                                                                           390
                                                                                                                                                          528
                                                                                                                                                                         445
                                                                                                                                                                                        588
                                                                                                                                                                                                      502
                                                                                                                                                                                                                     647
                                                                                                                                                                                                                                   562
                                                                                                                                                                                                                                                                 619
                                                                                                                                                                                                                                                                                758
                                                                                                                                                                                                                                                                                              619
                                                                                                                                                                                                                                                                                                             818
                                                                                                                                                                                                                                                                                                                            734
                                                                                                                                                                                                                                                                                                                                          876
                                                                                                                                                                                                                                                                                                                                                                        932
                                                                                                              330
                                                                                                                            470
                                                                 354
        234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LVQVIGTLELVGEIEAS;SMFSLCSSLSISFNSSRHFHLYGSNASL-AQVVMKVDVYEK
                                            RNRVQSLVLGAPRYQHIGLVAMFR--QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNG
                                                                                                                                                          STDLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAV--LYGEQGQPWGRFGAALTVL
                                                                                                                                                                  GDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSORIAGSKLSPRLQYFGQSL
                                                                                                                                                                                                EAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLG
                                                                                                                                                                                                                                                           LTQTCETLKLQLPNCIEDPVSPIVLRLNFSL---VGTPLSAFGN-----LRPVLAEDAQ
                                                                                                                                                                                                                                                                                         RLFTALFPFEKNCGNDNI CQDDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQ
                                                                                                                                                                                                                                                                                                                            EI - - - - PFEKNCGEDKKCEANLRVSFSPARSRALRLTAFASLSVELSLSNLEEDAYWVQ
                                                                                                                                                                                                                                                                                                                                           VTFFFFLDLSYRKVSTLQNQRSQRSWRLACES -- ASSTEVSGALKSTSCSINHPIFPENS
                                                                                                                                                                                                                                                                                                                                                    --KPHSQIPVSCEELPEESRLLSRAL---SCNVSSPIFKAGH
                                                                                                                                                                                                                                                                                                                                                                        EVITENITEDVDSKASLGNKLLLKANVISENN----MPRINKIEFQLELPVKYAVYMVIS
                                                                                                                                                                                                                                                                                                                                                                                 HGVSTKYLNFTASENTSRVMQHQYQV---SNLGQRSLP-ISLVFLVPVRLNQTVIWDRPQ
                                                                                                                                                                                                                                                                                                                                                                                                                QEDSTLYVSFTPKGPKIHQVKHMYQVRIQPSIHDHNIPTLEAVVGVPQPPSEGPITHQWS
                                                                                                                                                                                                                                                                                                                                                                                                                                           NATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVP
                                                                  KSRQELNTIASKPPRDHVPQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEG
                                                                          :|::|: || || : || : || || |: || || ESQETLHKFASKPASERVILDTFEKLKDLFTELQKKIYVIEGTSKQDLTSFNMELSSSG
                                                                                                FSAAITSNGPLLSTVGSYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IIL
                                                                                                                                     SGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVV-KGK
               VRELFNI TNGARKNAFKI LVVI TDGEKFGDPLGYEDVI PEADREGVI RYVI GVGDAFRSE
       TVMEQLKKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKDMMSEG-GPPGAEP 1152
                                                                                                                                                                                                                                                                                                                                                         LDLHFPPGLSFRKVEML
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1045
                                                                                                                                                                                                                                                   648
                                                                                                                                                                                                                                                                                 708
                                                                                                                                                                                                                                                                                                                                           819
                                                                                                                                                                                                                                                                                                                                                          735
                                                                                                                                                                                                                                                                                                                                                                         877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1105
                                                                                211
                                                                                                                              413
                                                                                                                                            331
                                                                                                                                                          471
                                                                                                                                                                                        529
                                                                                                                                                                                                       446
                                                                                                                                                                                                                      589
                                                                                                                                                                                                                                     503
                                                                  295
                                                                                                355
                                                                                                                                                                         391
        175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                g
                                                                             셤
                                                                                             6 6 6 6 6 6
                                   ò
                                                             ∂
```

927 AA

PRELIMINARY;

RESULT 12 Q8HZV0 ID Q8HZV0

```
28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     - FPHSHVPVGCEELPEBAVVHS-RALSCNVSSPIFGEDSMVDIQVMFNTLQKGSWGDFIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HIGLVAMFRO - - NTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AEGQVIVLSSRPVVDIITSVSFSPAEIPVHEVECSYSTSNQKKEGVNLTVCFQVKSLIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IEDPVSPIVLRLNFSL---VGTPLS--AFGNLRPVLAEDAQRLFTALFPFEKNCGNDNIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QDDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QRSQRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GSYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAG-EVRVCLHVQK--ST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              190 MOYSEEFRIHFTFKEFONNPNPRSLVKPITOLLGRTHTATGIRKVVRELFNITNGARKNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                : | :: || || : :|::||: || || || EFVKILDTFEKLKDLFTELQKKIYVIEGTSKQDLTSFNMELSSSGISADLSEGHGVVGAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea; Bovidae; Bovinae; Bo8.
                                                                                                                                                                                                                                                                                                                                                                                                                    Length 927;
                                                                                                                                                                                                                SEQUENCE FROM N.A.
Thumbikat P., Kannan M.S., Maheswaran S.K.;
Thumbikat P., Kannan M.S., Maheswaran S.K.;
Tsequence of the alpha subunit of bovine lymphocyte function associated antigen 1.";
Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
EMBL, AF440778; AAN63636.1; -.
NON TER 1 1 1
NON TER 927 AA: 102523 MW; 02E2CF09917081EC CRC64;
Q8HZVO;
01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
Lymphocyte function associated antigen 1 (Fragment)
Bos taurus (Bovine).
                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 21.4%; Score 1277; DB 6;
Best Local Similarity 34.8%; Pred. No. 2.5e-84;
Matches 340; Conservative 167; Mismatches 385;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
```

181 194 241 254	Db 301 VVLTÖGDIFGEPLNLTTVINSPRAGGIVRFAIGVGBAFKNNNTYRELKLIÄASDFKEAHTF 360  QY 314 QVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGP-LLSTVGSY 372  Bb 361 KVTNYSALDGLLSKLQORIVHMEGTVGDALQYQLAQTGFSAQILDKGQVLLGTVGAF 417  QY 373 DWAGGVFLY-TSKEKSTFINMT-RVDS-DMNDAYLGYAAAIILRNRVQSLVLGAPRYQHI 429  A18 NASGGALIYSTONGREGFINGT-RVDS-DMNDAYLGYAAAIILRNRVQSLVLGAPRYQHI 429  A18 NASGGALIYSTONGREGFINGT-RVDS-DMNDAYLGYAAAIILRNRVQSLVLGAPRYCHI 427	430 GLVAMFRONTGMWESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQT	601 DLTVGAQGHVLLLRSQPVLRVKAIMEFNBFEVARNVFECNDQVVKGKEAGEVRVCLHVQK	Qy         757 AQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDS 814           bb         798 HYKEPSAIFQLPYEKDCRNKVFCIABIQLTTN-ISQQELVVGVTKEVTMNISLTNSGEDS 856           Qy         815 YRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGALKSTSCSINHPIFPE 874           bb         857 YMTNMALNYPRNLQPKKIQKPVSPDVQCDDPKPVASVLVMNCKIGHPIL-K 906           Qy         875 NSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVTSHG 934           CQ         875 NSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVTSHG 934           CQ         875 NSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVTSHG 934           CQ         875 NSSVNVSVTWQLEESVFPNRTADITVTISNSNEKSLARETRSLQFRHAFIAVLSR 961           CQ         875 NSCMYSVTWQLEESVFPNRTADITVTISNSNEKSLARETRSLQFRHAFIAVLSR 961	952 PSVMYMNTSQSPSDHKEFFRVHGENLFGAVFQLOICVPIKLQDFQIVRVKN 952 PSVMYMNTSQSPSDHKEFFRVHGENLFGAVFQLOICVPIKLQDFQIVRVKN 955 LSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLK 
Qy '898 LKANVTSENNMPRTNKTEFQLELPVKYAVYWVTSHGVSTKYLNFTASENTS 949	814 SDEAESCSFGTEPRCPIDFRQBILVQVNGMVELRGTI 1059 KTSHNHLLIVSTAEILFNDSVPTLLPQQAFVRSQTETKVEPFEVPNPLPLIVGSSVGGT	PRESULT 13   PRELIMINARY;   PRT;   1167 AA.   PRT;   P	C Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; C Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus. OX NCBI_TAXID=10116; RN [1] RP SEQUENCE FROM N.A. RX MEDLINE=98056820; PubMed=934838; RY MEDLINE=98056820; PubMed=934838; RT "Sequence analysis of rat integrin alpha E1 and alpha E2 subunits: RT "Sequence analysis of rat integrin alpha E1 and alpha E2 subunits: RT intraepithelial lymphocytes and dendritic cells in lymph."; RT Eur. J. Immunol. 27:3070-3079(1997). DR EMBL; AF020045; AAC23662.1;		Query Match         19.7%;         Score 11.71.5;         DB 11;         Length 1167;           Best Local Similarity 29.2%;         Pred. No. 2e-76;         Assmatches 464;         Indels 205;         Gaps 43;           Qy         5 VLLITALTICHGFNLDTENAMTFQENARGFGGSVVQLQGSRVVVGAPQEIVAANQRGS 62           Db

Ţ

ALL CAMPAGE

```
-----EEWHSVICAITSNKENVTVAAEISMGHTKQLLRDISELQILGEISFNKSLYEGL 1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1084 PGQGAFVRSQTETKVEPF----EVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYK 1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  --SLQFRHAFIAVLSR--PSVMYMN--TSQSSSDHKEFFFNVHGENHFGAVFQLQICVPI 1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GPREFNVTVTVRNDGEDSYRIQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV 856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -QTSEERRNHPNPIL--DHYKEPSAIFQLPYEKDCKNKVFCIAEIQLTTAISQQD-LVVG
VAALHKAHGVSYVAGAPRHKLRGAVFELQKEDGEETFMRRI EGEQMGSYFGSVLCPVDIN
                                                                                                               QYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               642 QVVKGKEAGEVRVCLHVQKS---TRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ----TQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         729 QRLQCADRSCCQSCLMKWSGGSSLCEHFGLISTEEEL-----CEDDCFSNITIKVSYEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      739 VGTPLSAFGNLRPVLAEDAQRLFTALF - PFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      839 ITKEVTMNISLTNSGEDSYMTNMALNYPRNLQFKKI-----QKPLSPDIQCDDPKPV--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RLNQTVIWDRPQVTFSENLSST-CHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1002 TLRDL-----QIIRVKHLTKTQAHT------ECTQSQEPTCGSDPVQNV----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1036 PFFGIQEEFNATL----KGNLSFDWYIKTSHNHLLI--VSTAEIL---FNDSVFTLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ALPHA1 integrin.
Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                  634 YYFGMSVSGGLDFSGDDLADITVGSQDVAVVLRSRPVVDLTVSMTFTPDALP-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                      SNGSTDLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTV
                                                                                                                                                                                                                LGDVNGDKLTDVAIGAP-----GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
TISSUB-Gizzard;
MEDLINE-97476270; PubMed-9334246;
Obata H., Hayashi K., Nishida W., Momiyama T., Uchida A., Ochi T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT; 1171 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-JAN-1998 (TrEMBLrel.
01-JAN-1998 (TrEMBLrel.
01-MAR-2003 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TRRQ----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1140 DMMSE 1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1148 QLNLE 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=9031;
                                                                                                                                         516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1040
                                                                                                                                                                                                                528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          042094;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         042094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gallus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                      ઠે
                                                                                                                          용
                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                               용
                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   280 HVLDNIFIPSRGSRKKALKVWVVLTDGDIFRDPLNLTTVISSSKWQGVVRFAIGVGNAFE 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     340 NNNTYRELKLIASDPKAAHTFKVTNYSALDGLLSKLQORIIHMEGT---VGDTLQYQLAQ 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | : | : : | | | : | | : | | : | | : | | : | | | : | | : | | : | | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | : : | | | : | | | CDPSNNQTC----LLVARRSSNRNSAVLYQCATSIIPDEIGCQPVEHILMPKGRYQGVTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -----QTCSENTYVKGLCFLFGSNLRQQPQKFPEALRG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100 VRNHNGVLVCIQVQSRKPRSLNSELTGACSLLTPNLDLQAQAYFSDLEGVLDLGASVNSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ----CPQED----SDIAFLIDGSGSIIPHDFRRMKEFVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TVMEQL -- KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               220 TWMRNFYEKCFECNFALVQYGGVIQTEFDLLDSRDINASLAKVOSIVQVKEVTKTASAMQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KVVRELFNITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEKSROELNTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EGFSAAITSNGP-LLSTVGSYDWAGGVFLY-TSKEKSTFINMTRVDSDMNDA---YLGYA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               397 TGFSAQILDKGQVLLGTVGAFNWSGGALLYNTQNGRGRFLNQT-AKEDFRAAQYSYLGYS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAIILRNRVOSLVLGAPRYOHIGLVAMFRONTGMWESNANVKGTOIGAYFGASLCSVDVD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5 VLLLTALTLCHGFNLDTBNAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QCDYSTGSCEPIRLQVPVEAVNM-SLGLSLAATTSPPQLLACGPTVH-------
                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 11; Length 1167;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tch
al Similarity 27.8%; Pred. No. 4.6e-73;
352; Conservative 214; Mismatches 456; Indels 243;
                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=98056820; PubMed=9394838;

MEDLINE=98056820; PubMed=9394838;

Beream M., Rees D.J.G.;

I sequence analysis of rat integrin alpha E1 and alpha E2 subur tissue expression reveals phenotypic similarities between tissue expression reveals phenotypic similarities between tissue expression reveals phenotypic similarities between tissue expression reveals phenotypic similarities between tissue expression reveals phenotypic similarities between tissue expression reveals phenotypic similarities between tissue expression reveals phenotypic similarities between tissue expression reveals phenotypic similarities between tissue expression reveals phenotypic similarities and dendritic cells in lymph.";

Eur. J. Immunol. 27:3079 (1997).

EMBL; AF020046; AAC23663.1;

EMBL; AF020046; AAC23663.1;

EMBL; PF00095; VWF J.

R PRINTS; PR00185; Integrin_A; I.

R PRINTS; PR00185; Integrin_A; I.

R PRINTS; PR00185; VWATDOMAIN.

ENART; SM00191; Int. alpha; A.

ENART; ENART; ENARTS A.

ENART; ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

ENARTS A.

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MW; E3FED7E18B5CBBEC CRC64;
                                                                                                                                             Last sequence update)
Last annotation update)
                                        Ź
                                        1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
                                                                                                           Created)
                                        PRT;
                                                                                                                                                                                                            Integrin alpha E2 (Fragment).
Rattus norvegicus (Rat).
                                                                                                    (TrEMBLrel. 08, (TrEMBLrel. 08, (TrEMBLrel. 23)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1167 AA; 128593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     144
                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
                                                                  088341;
01-NOV-1998
                                                                                                                                         01-NOV-1998
01-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NON TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Loca
Matches
                                        SOOR BRANCH OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

1035

838

738 782 196

728

633 641 890

947 976

A ....

ا ا

```
47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       56 AANQRGSLYQCDYSTGSCEP-IRLQVP-----VEAV--NMSLGLSLAATTSPPQLLAC 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GPTVHQTCSENTYVKGLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHD 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              236 TQTWTALGIDTAREFAFTFAHGARRGVQKVWVIVTDGESH-DNYRLQEVIDKCEDENIQR 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             283 YVIGVGDAF----RSEKSRQELNTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEG 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTDQQAASFEMEMSQAGFSAHYSQDWVMLGAVGAYDWNGTVVWVKDSDISIPSNDTFRDR 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DMND-----AYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQ 452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IGAYFGASLCSVDVDSNGS|TDLVLIGAPHYY--EQTRGGQVSVCPLPRG------QRA 502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ||:||| : ::|:: : ||||:||| | | : ISSYFGGVITTIDINRDSFTDLLLVGAPTYMGTEKEEQGKVYVYALNKTKFEYQMSLEPI 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DVAEVNVSMQFMPKSI--NIQQQNCQINKRK----TICINATICFKTRLKSKEDIFESS 706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDS 397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLH--VQKSTRDRLREGQIQSV 674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    176 WESVTAPLNSLLRNMDIGPQQTQVGIVQYGQTVVHEFYLNTYSTTEEVMDAALRIRQRGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MAASYWMLTALFHLIGASNVDVKNAMTFSGPLEDMFGYTVQQYENEEGKWVLIGSPLVGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HSEKIEPLAAYLGYTVNSALTPGGVLYIAGQPRYNHTGQVIIYKMEGREVKVLQRLKGEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MALRVLLLTAL-TLCHGFNLDTENAMTFQENARG-FGQSVVQL---QGSRVVVGAPQEIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 PEKRIGDVYKCPVGRDSQSPCIKLNLPDATSVPNVMEVKENMTLGTTL-VINPKGGFLAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FRRMKEFVSTVMEQLK - - KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -RTHTATGIRKVVRELFNÍTNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RWQCDAVLYGE-----QGQPWG-RFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
17.9%; Score 1068.5; DB 13; Length 1171;
Best Local Similarity 28.4%; Pred. No. 6.9e-69;
Matches, 349; Conservative 215; Mismatches 521; Indels 145; Gaps
                                    transcriptional regulation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1171 AA; 130228 MW; B505A4D65F09736E CRC64;
                        "Smooth muscle cell phenotype-dependent the alphal integrin gene.";

M. Blol. Chem. 272:26643-26651(1997).

EMBL; AB000470; BAA23160.1

EMBL; AB000471; BAA23161.1
                                                                                                                                                                                                 InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002035; VWF_A.
From: PF010195; FG-GAP; 5.
From: PF001957; integrin_A; 1.
PRINTS; PR01195; INTEGRINA.
PRINTS; PR001915; INTEGRINA.
PRINTS; SM00191; Int_alpha; 4.
SWART; SM00327; VWAA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
                                                                                    J. Biol. Chem. 272:2
EMBL: AB000470; BAA2
EMBL; AB000471; BAA2
HSSP; P17301; 1AOX.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Integrin.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
RATTA RELEASE OF THE STATE OF T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    рp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

```
1004 RLPSHSDFLAELRKAP----VVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDW--- 1056
                                                                                                                                                                                                                                                                                                                                                                                                                             1057 YIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPL--IVGSS 1114
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ----YQVSNLGQRSLP-ISLVFLVP--VRLNQTVIWDRPQVTFSENLSSTCHTKE---- 1003
                                                                                                                                                                                                                                                                 787
                                                                                                                                               814 AGDSSSPFIVKSRNDRFTIQLSIKNKKDSAYNTRALVQYSPNIIFAGIEDIQKD----- 867
                                                                                                                                                                                   904
                                                                                                                                                                                                     905 ENNMP----RINKTEFQLELPVKYAVYMVTS----HGVSTKYLNFTASENTSRVMQHQ 955
                   ---MSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW 844
675 VTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLK-----LQLPNCIEDPVSP 729
                                                                                                                                                                               845 RLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTS
                                                                                                                                                                                                                                                                                                                                                                                       1031 KIGSGKSYVLPKIKEPTKDTIMECDTFSCASINCALAPSDI-SQVNVSLR-----VWKPT
                                                            730 IVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFERNCGNDNICQDDLSITFSF--
                                                                             1115 VGGLLLLALITAALYKLGFFKRQYKDMMSE 1144
                                                                                                                       788
                                                                                                                                                                                                                                                                                                         926
                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                     g
                                                    ò
                                                                                  g
                                                                                                          ò
                                                                                                                                             엄
                                                                                                                                                                                ጽ
                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                              .g
                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                ð
```

search completed: November 25, 2003, 14:20:22 fob time : 39.5727 secs

δ

```
Human alphad prote
Human alpha d prote
Human Beta2 integr
Rat alpha-d subuni
Rat alpha-d #1. R
Rat alpha-d #1. R
Rat alpha-d #1. R
Rat alpha-d protei
Rat Beta2 integrin
Mouse beta 2 integrin
Mouse beta 2 integrin
Mouse alpha-d #2.
Mouse alpha-d protei
Mouse alpha-d protei
Mouse alpha-d protei
Rat beta-integrin
Rat alpha-d protein
Rat alpha-d protein
Rat beta-integrin
Rat beta-integrin
Rat beta-integrin
Rat beta-integrin
Rat beta-integrin
Rat alpha-d alpha-d subu
Rat beta 2 integrin
Rat alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alpha-d alp
                                                                             Human beta2 integr
Human alpha clon
Human Beta2 integr
Human beta2 integr
Human beta 2 integr
Human alpha-d deri
Human Beta-integri
                             beta-2 integ
beta 2 integ
                                                     Human alpha-d. Ho
                                                                   Beta-integri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Beta-integrin alpha-d subunit; human; modulator; treatment; psoriasis; type-I diabetes; atherosclerosis; multiple sclerosis; asthma; lung inflammation; acute respiratory distress syndrome; CD11b subunit; rheumatoid arthritis.
               Protein (
Human be
                                                                  Human
                                           Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human Beta-integrin CD11b subunit protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                    AAB07373
ABG61482
AAW65104
AAW73345
ABG61470
ABU07406
AAR78166
AAW23049
AAW72825
                                                                 AAW65089
AAW57491
AAW73342
AAB07359
                                                                                                                     ABG61468
AAW23064
AAW72837
AAW65106
                                                                                                                                                                            AAW73343
AAB07376
ABG61485
                                                                                                                                                                                                                                 AAW23062
AAW72824
AAW60004
AAB07374
ABG61483
AAW23061
                                                                                                                                                                                                                                                                                                                                           AAW60003
AAW73347
                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW23059
AAW72834
                                                                                                                                                                                                                    AAR78169
AAW23062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAW65101
AAW60001
                                                                                                                                                                                                                                                                                                                 AAW72836
                                                                                                                                                                                                                                                                                                                                                                                                                            AAR78168
                                                                                                                                                                                                                                                                                                                                AAW65103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAW65090 standard; Protein; 1153 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Van DER VIEREN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                95US-0485618.
93US-0173497.
94US-0286889.
94US-0362652.
  95US-0485618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
 CORP
  07-JUN-1995;
23-DEC-1993;
05-AUG-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (ICOS-) ICOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gallatin WM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-DEC-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US5728533-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-MAR-1998
AAW65090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW65090
  Human Beta-integri
Human CD11b protei
Human Betaz integr
Human integrin 1 a
Integrin Mac-1 alp
Alpha subunit of M
p150.95 alpha subu
Human Beta-integri
Human CD11c protei
                                                                                            2003, 14:08:29 ; Search time 36.8086 Seconds (without alignments) 4971.979 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                           A Geneseq 19Junio : *

| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1980.DAT: *
2: | SIDSI/gcgdata/geneseq-embl/AA1981.DAT: *
3: | SIDSI/gcgdata/geneseqg-embl/AA1981.DAT: *
4: | SIDSI/gcgdata/geneseqg-embl/AA1981.DAT: *
5: | SIDSI/gcgdata/geneseqg-embl/AA1981.DAT: *
5: | SIDSI/gcgdata/geneseqg-embl/AA1981.DAT: *
7: | SIDSI/gcgdata/geneseqg-embl/AA1985.DAT: *
8: | SIDSI/gcgdata/geneseqg-embl/AA1980.DAT: *
9: | SIDSI/gcgdata/geneseqg-embl/AA1980.DAT: *
10: | SIDSI/gcgdata/geneseqg-embl/AA1980.DAT: *
10: | SIDSI/gcgdata/geneseqg-embl/AA1980.DAT: *
11: | SIDSI/gcgdata/geneseqg/geneseqg-embl/AA1980.DAT: *
11: | SIDSI/gcgdata/geneseqg/geneseqg-embl/AA1990.DAT: *
11: | SIDSI/gcgdata/geneseqg/geneseqg-embl/AA1991.DAT: *
11: | SIDSI/gcgdata/geneseqg/geneseqg-embl/AA1991.DAT: *
11: | SIDSI/gcgdata/geneseqg/geneseqg-embl/AA1991.DAT: *
11: | SIDSI/gcgdata/geneseqg/geneseqg-embl/AA1991.DAT: *
11: | SIDSI/gcgdata/geneseqg/geneseqg-embl/AA1992.DAT: *
11: | SIDSI/gcgdata/geneseqg/geneseqg-embl/AA1999.DAT: *
12: | SIDSI/gcgdata/geneseqg/geneseqg-embl/AA1999.DAT: *
13: | SIDSI/gcgdata/geneseqg/geneseqg-embl/AA1999.DAT: *
14: | SIDSI/gcgdata/geneseqg/geneseqg-embl/AA1999.DAT: *
15: | SIDSI/gcgdata/geneseqg/geneseqg-embl/AA1999.DAT: *
16: | SIDSI/gcgdata/geneseqg/geneseqg-embl/AA1999.DAT: *
20: | SIDSI/gcgdata/geneseqg/geneseqg-embl/AA1999.DAT: *
21: | SIDSI/gcgdata/geneseqg/geneseqg-embl/AA1999.DAT: *
22: | SIDSI/gcgdata/geneseqg/geneseqg-embl/AA2001.DAT: *
23: | SIDSI/gcgdata/geneseqg/geneseqg-embl/AA2001.DAT: *
24: | SIDSI/gcgdata/geneseqg/geneseqg-embl/AA2001.DAT: *
24: | SIDSI/gcgdata/geneseqg/geneseqg-embl/AA2003.DAT: *
24: | SIDSI/gcgdata/geneseqg/geneseqg-embl/AA2003.DAT: *
24: | SIDSI/gcgdata/geneseqg/geneseqg-embl/AA2003.DAT: *
                                                                                                                                                                              1 MALRVLLLTALTLGHGFNLD......FKRQYKDMMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Description
                                                                                                                                                                                                                                                                           1107863
               5.1.6
Compugen Ltd
                                                                                                                                                                                                                                                                           chosen parameters:
                                                                                                                                                                                                                                               1107863 segs, 158726573 residues
               version -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                                                                                                                                                                                                                                           Post-processing: Minimum Match 08
Maximum Match 1008
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAB07360
ABG61469
AAU80252
AAO14428
AAR04136
AAR07120
AAW65091
                                                                   using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAW65090
                                                                                                                                                                                                       BLOSUM62
Gapop 10.0 , Gapext 0.5
               GenCore
(c) 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                      seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      233333
                                                                                                                                                                                                                                                                           hits satisfying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                   US-09-902-481B-1
5956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1153
1153
1153
1153
1153
1163
1163
                                                                     protein search,
                                                                                             November 25,
                             Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query
Match 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
1000.0
                                                                                                                                                                                                                                                                           Total number of
                                                                                                                                                              Perfect score:
                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
                                                                                                                                                                                                                                                                                                     Minimum DB
Maximum DB
                                                                   protein
                                                                                                                                                                              Sequence:
                                                                                                                                                                                                                                                Searched:
                                                                                                                                                                                                                                                                                                                                                                                                    Database
                                                                                              Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       126459786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Result
```

Tue

```
1020
                                                                                                                                                                                                                                                                                                                                                                            1080
                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                             960
                                               780
                                                                              780
                                                                                                            840
                                                                                                                                            840
                                                                                                                                                                             900
                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human, macrophage infiltration inhibition, alpha_d integrin, leukocyte integrin; Leu-CAM; leukointegrin; immune response; inflammation; leukocyte adhesion deficiency; LAD; Type I diabetes; atherosclerosis; multiple sclerosis; asthma; psoriasis; beta2 integrin; lung inflammation; acute respiratory distress syndrome; Crohn's disease; rheumatoid arthritis; central nervous system injury; CD11b.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            TLLPGGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD
                                                                                                                                                                                                                                                                                                                               1021 VNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
NCIEDPVSPIVLRINFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                               QRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA
                                                                                                                                                                                               NVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                               LGGRSLP1SLVFLVPVRLNQTV1WDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV
                                                                                                                                                                                                                                                                                                                                                                            VNCSIAVCORIOCDI PFFGIOEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVP
                                                                                                                                                                                                                                                                                                                                                                                                                                             TLLPGOGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD
                                                 NCI EDPVSPI VLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNI CQDD
                                                                                                                LSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Use of novel anti-alpha integrin d monoclonal antibodies to inhibit macrophage infiltration and reduce inflammation at central nervous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB07360 standard; Protein; 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Van Der Vieren
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human CD11b protein sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0193043.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US27139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      system injury sites
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2000-387751/33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200029446-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gallatin MW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (ICOS-) ICOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-NOV-1998;
08-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB07360;
                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                               961
                                                                                                                                                                                                                                                                                                                                                196
                                                                                                                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1141
                                                  721
                                                                                 721
                                                                                                                781
                                                                                                                                              781
                                                                                                                                                                              841
                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 2
AAB07360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                            g
                                                                                                                                           셤
                                                                                                                                                                             ઠે
                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                        8
                                                                                                                ઠે
                                                                                                                          This sequence represents a human beta-integrin CD11b subunit which is used to describe a method for identifying compounds that modulate the interaction of the beta-integrin alpha-d subunit with a binding partner of alpha-d which involves contacting an alpha-d polypeptide with an alpha-d binding partner, one of which is immobilised and the other of which is labelled, in the presence of a test compound, and determining if the compound affects binding between the alpha-d polypeptide and alpha-d binding partner, where the alpha-d polypeptide is alpha-d or its fragment comprising the cytoplasmic, transmembrane or extracellular domain of alpha-d. Compounds that modulate alpha-d binding could be used to treat diseases such as type-I diabetes, atherosclerosis, multiple sclerosis, sethmacome and rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRDRLREGGIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HYYEQTRGGOVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MALRVILLITALTICHGFNIDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NTIASKPPRDHVFOVNNFEALKTIONOLREKIFAIEGTOTGSSSSFEHEMSQEGFSAAIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCHVQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQE1VAANQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                               Length 1153;
                                                      ġ
                                   Scréening assay for modulators of integrin binding - using immobilised or labelled alpha-d polypeptide, useful for, e.
                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                               DB 19;
                                                                                                                                                                                                                                                                                                                                                                                                                               .;
0
                                                                                                                                                                                                                                                                                                                                                                                            Score 5956; I Fred. No. 0; 0; Mismatches
                                                                                                    English
                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100.0%;
Matches 1153; Conservative 0
                                                                                                1A-D; 106pp;
                                                                treating type-I diabetes
                                                                                                                                                                                                                                                                                                                                                               1153 AA;
                                                                                                5; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                    Example
```

ઠ

q

6 6 6 6 6

ò

g

ठे

g

ò

g

8

1

```
STRDRLREGQIOSVUTYDLALDSGRPHSRAVFNETKNSTRROTOVLGLTOTCETLKLOLP
                                                                                                                                                                                                                                                                                                                                                                                  961 LGQRSLPISLVFLVPVRLNQTVIMDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1081 TLEPGGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKROYKD
                                                                                                                                                                                                                                                                                                         NVTSENNMPRINKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                                              LGORSLPISLVFLVPVRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021 VNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD
                                                                          NVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                                                                                                                       VNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
                                                                                                                                  LSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                         QRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA
                                                                                                                                                                                                                                ORSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA
                                                       NCIEDPVSPIVLRINFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Use of an anti-alpha-d monoclonal antibodies for promoting locomotor recovery, inhibiting locomotor damage, limiting locomotor impairment,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human Beta2 integrin alphaCD11b subunit.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABG61469 standard; Protein; 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Vieren
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15-OCT-2001; 2001WO-US32059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13-OCT-2000; 2000US-0688307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MMSEGGPPGAEPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Van Der
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2002-463260/49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (ICOS-) ICOS CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200230980-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gallatin WM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1141
                                                                                                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABG61469;
                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1081
                                                         721
                                                                                            721
                                                                                                                                  781
                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                              196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 3
ABG61469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                       δ
                                                                                            셤
                                                                                                                                  δ
                                                                                                                                                                   셤
                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                   Integrins are a class of membrane-associated molecules that participate in cellular adhesion. Integrins are made up of an alpha subunit and a beta abunit. One class of human integrins are restricted to expression in white blood cells and have a common beta2 subunit: the leukocyte in white blood cells and have a common beta2 subunit: the leukocyte common beta2 integrins. Beta2 integrins have an important role in immune and inflammatory responses. The present protein sequence is the human integrin alpha subunit clollb. This sequence was used in an alignment to identify a novel beta2 integrin alpha subunit: alpha (AAA$6014 and AAB07135). The present sequence has approximately 60% identity to the protein sequence of alpha d. The Alpha and protein may be useful in therapy for diseases linked to aberrant alpha dinction e.g. Type I diabetes, atherosclerosis, multiple sclerosis, asthma, psoriasis, lung inflammation, acute respiratory distress syndrome, rheumatoid arthritis and leukocyte adhesion deficiency (LAD). In addition, anti-alpha d monoclonal antibodies may be used in the inhibition of macrophage infiltration at the site of a central nervous system injury. The monoclonal antibodies can also be used to detect and diagnose Crohn's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541 IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRDRLREGGIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GSLYOCDYSTGSCEPTRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINWTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KKSKTLFSLMQYSBEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LGAPRYQHIGLVAMFRONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 5956;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                       Example 5; Fig 1; 270pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1153 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
Matches 1153; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
```

셤

ઠે g ò g ò g ò

ò

g

a

õ

ò

a

\$ A ठे 유 8 g ò

1080

1140

1020 1020

840 900 900 960 960

840 780

Beta2 integrin; alphaD subunit; CD11c subunit; CD11b subunit; LAD; leukccyte adhesion deficiency; inflammatory response; diabetes; multiple sclerosis; arthritis; sinch scalerosis; neuroprotective; inflammatory bowel disease; Crohn's disease; ulcerative colitis; immune complex alveolitis; leukaemia; ICAM-R; VCAM-1; anti-inflammatory; infracellular call adhesion molecule; vascular cell adhesion molecule; vascular cell adhesion molecule; autonomic dysfunction; sensory dysfunction; spinal cord injury.

```
LGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                             VNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD
                 STRDRIREGGIOSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP
                                                                                                                                                   NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                                                                              LSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                               LSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFFLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                               QRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA
                                                                                                                                                                                                                                                                                QRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA
                                                                                                                                                                                                                                                                                                                             NVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Integrin; antiinflammatory; imunosuppression; nephritis; dermatitis; inflammatory disease; autoimmune disorder; Crohn's disease; human immunodeficiency virus; HIV; myocardial infarction; Sjorgen's syndrome; rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human integrin 1 alpha-M subunit protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ဗ္ဗ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note= "Encoded by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAU80252 standard; Protein; 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ΰ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-229700P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 31-AUG-2001; 2001WO-US27227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Shimoaka M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Misc-difference 499..500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BLOOD RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200218583-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (BLOO-) CENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Springer TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU80252;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1141
                                                                                                                                                               721
                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1021
 501
                                  601
                                                                 661
                                                                                                 661
                                                                                                                                  721
                                                                                                                                                                                                 781
                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAU80252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  음
                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                            셤
                                                                                                                                                            셤
                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                            ઠે
                                                               ઠ
                                                                                                                                  ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT 360
                                                                              The invention relates to promoting locomotor recovery, inhibiting locomotor damage, limiting locomotor impairment, or limiting autonomic and sensory dysfunction following spinal cord injury by administering an anti-alpha d (Beta2 integrin appla2 subunit) monoclonal antibody to a spinal cord injury victim The method also involves the use of molecule, vascular cell adhesion molecule. The method is useful for molecule, vascular cell adhesion molecule. The method is useful for promoting locomotor recovery, inhibiting locomotor damage, limiting locomotor impairment, or limiting autonomic and sensory dysfunction following spinal cord injury. In particular, the spinal cord injury for reducing inflammation at the spinal cord. The antibodies are also useful for reducing inflammation at the site of a central nervous system injury. The specification also details the identification of Beta2 integrin albab CDNAs and proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                 integrins are implicated in diseases such as LAD (leukocyte adhesion deficiency, inflammatory response, diabetes, multiple sclerosis, arthitis, graft atherosclerosis, inflammatory bowel disease. Crohn's disease, ulcerative colitis, immune complex alveolitis and leukaemia. The present sequence is a Beta2 integrin alpha subunit sequence included for comparison with the Beta2 integrin alpha protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINWTRVDSDWNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GLCFLFGSNLRQOPQKFPEALRGCPQEDSD1AFL1DGSGS11PHDFRRMKEFVSTVMEQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LCAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
     sensory dysfunction following spinal cord
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
100.04; Score 5956;
Best Local Similarity 100.04; Pred. No. 0;
Matches 1153; Conservative 0; Mismatches
                                                     Example 5; Page 191-194; 270pp; English
     and
     autonomic
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1153 AA;
   or limiting
                                                                                                                                                                                                                                                                                                                                                                                                                      sednences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
```

g

8 8 8

g

ò

g

ઠે

g

8 8

ò

임

ò

셤

8 6

ò

õ

1140

1020

096

900

780

720 720 780

9 720 720 780 780 840

```
Mac-1; integrin alpha subunit; variant integrin inserted domain protein; open conformation; integrin related inflammatory disorder; integrin related immunological disorder; rheumatoid archritis; ischaemia; reperfusion; hypovolemic shock; infarction; cerebral shock; viral infection; cancer; gene therapy; vaccine; bloactive agent screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TLLPQQAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD
                                                                                                                                                                                                                                                       NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                                                                                                                                                                                                             LSITESFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                                                                                                                                                                       VNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD
 IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                       DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK
                                                                                                 STRDRLREGGIOSVVTYDLALDSGRPHSRAVFNETKNSTRROTQVLGLTQTCETLKLQLP
                                                                                                                                                                                   STRDRLREGGIGSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP
                                                                                                                                                                                                                                 NCIEDPVSPIVLRINFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                                                                                                                                                                                           LSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                                                                                                                                                     QRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NVTSENNMPRTNKTEFOLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMOHOYOVSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NVTSENNMPRINKTEFQLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LGORSLPISLVFLVPVRLNOTVIMDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AA014428 standard; protein; 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Integrin Mac-1 alpha subunit.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-JUL-2001; 2001WO-US21805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-JUL-2000; 2000US-216600P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1141 MMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200204521-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1141
 541
                                                                                                               601
                                                                                                                                                     661
                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AA014428;
                                                                           601
                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mac-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AA014428
                                                                                                                                                                                     g
                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                               ద
                                                                         ઠે
                                                                                                       셤
                                                                                                                                                 ò
                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                           8ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                 This invention relates to a modified integrin-I or integrin I-like domain polypeptide comprising at least one disulfide bond so that the domain is stabilised in a desired conformation. The polypeptide of the invention may have antilnflammatory or immnosuppressive activities. The polypeptides of the invention have an open conformation and are useful as immunogens to produce antibodies that selectively bind too integrin I domain; and for identifying a modulator of integrin activity, or of interaction of an integrin and a cognate ligand. The polypeptide of the invention, or antibodies (preferably anti-LFA-1 antibody) is useful for treating or preventing an integrin mediated disorder which is an inflammatory or autoimmuno disorder in a subject and for inhibiting the binding of an integrin or acquate ligand such as Crohn's disease, nephritis; human immunodeficiency virus (HIV), myocardial infarction, Sjorgen's syndrome, rheumatoid arthritis dermatitis. A therapeutic composition comprising the peptide of the invention is useful for treating an integrin mediated disorder in a subject. The polypeptides and/or active or antigenic fragments are useful as the mutant polypeptides of the invention.

Squencate the mutant polypeptides of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GSLYQCDYSTGSCEPIRLQVPVEAVMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NTIASKPPRDHVFQVNNFRALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LGAPRYQHIGLVAMFRONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GLCFLFGSNLRQQPQKFPERALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NTIASKPPRDHVFQVNNFBALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQETVAANQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GLCFLFGSNLRQQPQKFPBALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                     Modified integrin-I or intégrin I-like domain polypeptide useful as immunogen to produce antibédies specific to polypeptide, comprises a disulfide bond such that pélypeptide is stabilized in a desired
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; Score 5956; DB 23; Length 1153; Pred. No. 0; Pred. No. 0; Mismatches 0; Indels 0;
                                                                                                                                                     112pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100.0%;
Matches 1153; Conservative
                                                                                                                                                   Disclosure; Page 109-112;
WPI; 2002-382964/41.
N-PSDB; ABK50046.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1153 AA;
                                                                                                               conformation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
```

q ò

ò g ò 셤 ò g ò g ò 셤 ò g ò g ò

1020 1020 1080 1080

960

900 99 099

r.

```
QRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA
                                                                                                                                                                                                                                                                                                                                                                        VNCSIAVCORIQCDIPFFGIQEFFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
QRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA
                                                                                                                                                                                                                                                                                                                                                          NVTSENNMPRTNKTEFOLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                                                                                                       LGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV
                                                                                                                         LSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                  DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK
                                                                                                         STRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP
                                                                                                                                                                      NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mac-1 alpha subunit; Mac-1 alpha/beta heterodimer;
non-specific defence system; integrin gene superfamily
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        putative N-glycosylation site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 % label= putative N-glycosylation si
240.182
/*label= putative N-glycosylation si
391.393
/*label= putative N-glycosylation si
(499.471
/*label= putative N-glycosylation si
693.695
/*label= putative N-glycosylation si
697.699
/*label= putative N-glycosylation si
671.897 |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Alpha subunit of Mac-1 leukocyte adhesion receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAR04136 standard; protein; 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1141 MMSEGGPPGAEPO 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (updated)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-MAR-2003
07-SEP-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAR04136;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1141
                                                                              601
                                                                                                                                                                                                      721
                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                        961
                                                 601
                                                                                                                                           661
                                                                                                                                                                         721
                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HARITATATATATAK OKAM KEKATATATATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                              요
                                                                                                                                     셤
                                                                                                                                                                         ò
                                                                                                                                                                                                  음
                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઢ
                                           ઠે
                                                                                                             ઠે
                                                                                                                                                                                                                  The invention comprises structurally biased variant integrin inserted (I) domain proteins, wherein the alterations to the protein occur in at least two oncontinuous regions. Specifically the the variant integrin I domain proteins are structurally biased to exist in the open conformation, thereby altering the binding ability of the protein. The invention also comprises nucleic acids endoding the variant integrin I domain proteins. The integrin I domain proteins or suppressing integrin related inflammatory and immunological proteins and nucleic acids carriant integrin I domain proteins and nucleic acids can also be used for treating; ischaemia/ repertusion (e.g. hypovolemic shock); infarction; cerebral shock; viral infection; and cancer. The variant integrin I domain nucleic acids and infection; and cancer. The variant integrin I domain and proteins may be used in gene therapy, as vaccines and to screen for bloactive agents. The present amino acid sequence represents the Mac-1 alpha subunit of integrin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541 IGAPGEEDNRGAVYLFHGTSGSGISPSHSORIAGSKLSPRLOYFGOSLSGGODLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ITNGARKNAFKILVVITØGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                             New integrin I domain protein having alteration in at least 2 noncontiguous regions and exits in an open conformation, useful for treating, preventing or suppressing inflammatory or immunological
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          E
D
B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 5956;
Pred. No. 0;
           TECHNOLOGY
                                                                                                                                                                                             Example 1; Fig 1F; 90pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
         Q.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 100.
Matches 1153; Conservative
         CALIFORNIA INST
CENT BLOOD RES.
                                                                                    WPI; 2002-148167/19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1153 AA;
                                                        Springer T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                 disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
         (CALY ) (BLOO-)
```

8 ò a ò 8 S

ઠે

g

g ò g ò 임

ò

셤

ò

g

õ

8

1140

1020 1020

```
1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1140
                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960
                                                          180
                                                                                                                                                                      300
                                                                                                                                                                                                           300
                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRDRLREGGIGSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NVTSENNMPRINKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                       GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                          GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                            KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                  KXSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                        ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                             NTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTOTGSSSSFEHEMSQEGFSAAIT
                                                                                                                                                                                                                                                                   LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                                                                                                                                                                                                                                                                                                              HYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DLTVGAQCHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRDRLREGOIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LSITFSF#SLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901 NVTSENNMPRINKTEFOLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VNCSIAVCQRIQCDIPFFG1QEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VNCSIAVCORIOCDIPFFGIOEEFNATLKGNLSPDWYKTSHWHLLIVSTAEILFNDSVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MMSEGGPPGAEPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MMSEGGPPGAEPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1021
                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1141
                                                                                              181
                                                                                                                                   181
                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841
                                                          121
                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              961
                       121
                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                g
                                                                                            ઠે
                                                                                                                        g
                                                                                                                                                          ઠે
                                                                                                                                                                                                     g
                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                 કે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mac-1 alpha subunit is involved in the response to inflammation, i.e. recognition of and migration to sites of inflammation. It also attaches to cellular substrates as a part of this function making it useful in visualising endothelial tissue.

Mac-1 is a member of the Integrin Gene superfamily.

(Updated on 25-WAR-2003 to correct PR file1d.)

(Updated on 25-WAR-2003 to correct PR file1d.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New pure Mac-1 alpha sub-unit and corresp. DNA useful for treating inflammation and viral infections, and in diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1; Indels
                                                                                                                                                                                                                                                                                   site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1106..1134 | /*label= putative transmembrane region
             /*Iabel= putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative N-glycosylation signature of the putative of the putative of the putative of the putative of the
                                                                                                                                                                                                                                                                                                                 /*label= putative N-glycosylation si
1022..1024.
/*label= putative N-glycosylation si
1045..1047
/*label= putative N-glycosylation si
1051..1053
/*label= putative N-glycosylation si
1076..1078
/*label= putative N-glycosylation si
/*label= putative N-glycosylation si
/*label= putative N-glycosylation si
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
99.8%; Score 5946; D
Best Local Similarity 99.9%; Pred. No. 0;
Matches 1152; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1..16
/*label= signal peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INST INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page ?; ?pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               89EP-0115159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 88US-0235353
89US-0321239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (DAND ) DANA FARBER CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Corbi A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1990-125938/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1153 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-PSDB; AAQ04043.
Modified-site
                                    Modified-site
                                                                                                                                                 Modified-site
                                                                                                                                                                                                                                                             Modified-site
                                                                                                                                                                                                                                                                                                                                     Modified-site
                                                                                                                                                                                                                                                                                                                                                                          Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                             Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Modified-site
                                                                       Modified-site
                                                                                                              Modified-site
                                                                                                                                                                                                                          Modified-site
                                                                                                                                                                                                                                                                                                    Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Springer TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23-AUG-1988;
09-MAR-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-AUG-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-APR-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EP364690-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               region
```

8 6 8 6

Сарв

64 67 124 127 244 245 304 305 364 365 424 425 484

```
LFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSK 184
                                                                                                                                                                                                                                                                                                                                  LLGPT - - QLTQRLPVSRQECPRQEQDIVFLIDGSGSISSRNFATMMNFVRAVISQFQRPS 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               665 RLREGOIQSVVIYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PSFPGLKSLLVGSNLELNAEVMVWNDGRDSYGTTITPSHPAGLSYRYVAEGOKOGOLRSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                             RLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTS
                                                                                                                                                                                                                                         245 ARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                                                                                                                                 TLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAP
                                                                                                                                                                              5 VLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLY
                                                                                                                                                                                                 . 9
                                                                                                                     Length 1163;
 an
 88
           anti-inflammatory agent.
See also AAQ06063-4, AAQ06068, AAR07121-8 and AAR07152-6.
(Updated on 25-WAR-2003 to correct PR field.)
(Updated on 25-WAR-2003 to correct PA field.)
                                                                                                                                                   Indels
 nseq
inhibits cell-virus attachment. It can also be
                                                                                                                   58.7%; Score 3494; DB 11;
61.2%; Pred. No. 5.1e-282;
                                                                                                                     Query Match 58.7%; Score 3494; DB 11;
Best Local Similarity 61.2%; Pred. No. 5.1e-282;
Matches 698; Conservative 138; Mismatches 299;
                                                                                        1163 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        725
                                                                                                                                                                                                                                                                                                       125
                                                                                                                                                                                                                                                                                                                                     128
                                                                                                                                                                                                                                                                                                                                                                   185
                                                                                                                                                                                                                                                                                                                                                                                                 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                            246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     545
                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
 88888888
                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                     음
                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Clone lambda X47 was isolated from a cDNA library constructed from total RNA extracted from phorbol myristate acetate stimulated HL-60 myelomonocytic cells. The library was screened with oligonucleotide probes based on tryptic peptide fragments of p150.95. The sequence can be attached to appropriate control elements and expressed in prokaryotic and eukaryotic cells. The protein can be used to treat or prevent rhinoyiral infection because it interacts with ICAM-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Treatment of viral esp. rhino-viral infection - by admin. of alpho
sub-unit of p150.95 cell surface adhesion receptor, opt. together
with a beta chain of CD-18 |family.
                                                                                                                                                                                 p150,95 leucocyte adhesion receptor alpha-subunit; hairy cell leukaemia; rhinovirus.
                                                                                                                                                        p150.95 alpha subunit encoded by clone lambdax47.
                                                                                                                                                                                                                                                                                                                      /label=glycosylation site
185..387
/label=glycosylation site
392..394
/label=glycosylation site
697..699
/label=glycosylation site
                                                                                                                                                                                                                                                                                                                                                                                                                                 135..737
label=glycosylation site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                899..901 |
/label=glycosylation site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             904..906 |
/label=glycosylation site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         050..1052
label=glycosylation site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         label=glycosylation site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 'label=signal peptide
                                                                                                                                                                                                                                                                             1..63
label=glycosylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      label=transmembrane
                                                 Ź
                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20..44
/label=N-terminus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Fig 3; 59pp; English.
                                                 AAR07120 standard; protein; 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (DAND ) DANA FARBER CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         90WO-US0125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      89US-030545
                                                                                                           (updated)
(first entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1990-304985/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Springer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-PSDB; AAQ06068.
                                                                                                                                                                                                                                                                  key
Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                   Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                    Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Modified-site
                                                                                                                                                                                                                                                                                                           Modified-site
                                                                                                                                                                                                                                                                                                                                        Modified-site
                                                                                                                                                                                                                                                                                                                                                                    Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-MAR-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-FEB-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9010646-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-SEP-1990
                                                                                                           25-MAR-2003
05-FEB-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Corbi AA,
                                                                                                                                                                                                                                    Synthetic
                                                                               AAR07120;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Region
                                  AAR07120
```

844 844 904 902

963

724 724 784 784

664 664

nce 1163 AA; tch 58.4%; Score 3480; DB 19	CY 5 VLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLY 64	Qy 65 QCDYSTGSCEPIRLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCF 124	QY 125 LFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSK 184	QY 185 TLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNG 244	QY 245 ARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIA 304   ::    :	LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAP	OY 425 RYOHIGLVAMFRONTGMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE 484	Qy         485         QTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP         544           Db         486         QTRGGQVSVCPLPRGWR-RWWCDAVLYGEQGHPWGRFGAALTVLGDVNGDKLTDVVIGAP         544	OY 545 GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGGSLSGGQDLTWDGLVDLTV 604	Qy 605 GAQGHVLLLRSQPVLRVKAIMBFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRD 664	665 RLREGOIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIE	725 725 725	OY 785 FSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLONGRSGRSW 844	Qy 845 RLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTS 904	Qy 905 ENNMPRTNKTEFQLELPVKYAVYMVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQ 963    :   :	Qy 964 RSLDISLVPLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNC 1023
Db 903 ENNTPRISKTTFQLELPVKXAVYTVVSSHEQFTKYLMFSESEEKESHVAMHRYQVNNLGO 962  Qy 964 RSLPISLVFLVPVRLNQTVIMDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNC 1023	Qy 1024 SIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLL 1083  Db 1023 SIAGCLRFRCDVPSFSVQEELDFTLKGNLSFGWVRQILQKKVSVVSVAEITFDTSVYSQL 1082	OY 1084 PGQCAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLIALITAALYKLGFFKRQYKDMMS 1143  Db 1083 PGQERFMRAQTTTVLEKYKVHNPTPLIVGSSIGALLLLALITAVLYKVGFFKRQYKEMME 1142	Oy 1144 E 1144 Db 1143 E 1143		AAW65091;	KW Beta-integrin alpha-d subunit; human; modulacor; treatment; psoriasis; KW type-I diabetes; atherosclerosis; multiple sclerosis; asthma; KW lung inflammation; acute respiratory distress syndrome; CDllc subunit; KW rheumatoid arthritis.	AA. XX XX WS5728533-A.	XX XX PF 07-JUN-1995; 95US-0485618.	AX 07-JUN-1995; 95US-0485618. PR 23-DEC-1993; 93US-0173497. PR 05-AUG-1994; 94US-0286889.	(ICOS-) ICOS C	PI Gallatin WM, Van DER VIEREN M; XX XX XX XX YX WPI; 1998-206565/18.	Screening assay for modulato immobilised or labelled alph treating type-I diabetes		CC interaction of the beta-integrin alpha-d subunit with a binding partner CC of alpha-d which involves contacting an alpha-d polypeptide with an CC alpha-d binding partner, one of alpha-d binding partner, one of a monobilised and the other of CC which is labelled, in the presence of a test compound, and determining if		

us-09-902-481b-1.rag

```
--
                                                            Conservative 144;
                                  58.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   al Similarity
697; Conserv
            1163 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           903
                                Query Match
Best Local S:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    905
                                                                                                                                                                                                                  128
                                                                                                                                                                                                                                           185
                                                                                                                                                                                                                                                                                             245
                                                                                                                                                                                                                                                                                                                                              305
                                                                                                                                                                                                                                                                                                                                                                                                 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                   425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       725
             Sequence
                                                                                                                                       65
                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                               셤
                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                          ઠે
žõ
                                                                                                            g
                                                                                                                                        ઠે
                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Integrins are a class of membrane-associated molecules that participate in cellular adhesion. Integrins are made up of an alpha subunit and a class of human integrins are restricted to expression in white blood cells and have a common beta2 subunit: the leukocyte in white blood cells and have a common beta2 subunit: the leukocyte class of human integrins or beta2 integrins. Beta2 integrins chave an important role in famune and inflammatory responses. The present protein sequence is the human integrin alpha subunit coller. This sequence was used in an alignment to identify a novel beta2 integrin alpha subunit: alpha (AAA60014 and AAB07359). The present sequence has seproximately 66% identity to the protein sequence of alpha d. The Alpha_d gene and protein may be useful in therapy for diseases linked and function e.g. Type I diabactes, atherosolarorals, multiple sclerosis, asthma, psoriasis, lung inflammation, acute respiratory distress syndrome, rheumatoid arthritis and leukocyte adhesion deficiency (IAD). In addition, anti-alpha d monoclonal antibodies can also be used in the inhibition of macrophage infiltration at the site of a central nervous system injury. The monoclonal antibodies
                                                                          1143
 RDLPVSINFWVPVELNQEAVWMDVEVSHPQNPSLRCSSEKIAPPASDFLAHIQKNPVLDC 1022
                                                                                                                                                                                                                                                                                                                        Human, macrophage infiltration inhibition, alpha_d integrin; leukocyte integrin; Leu-CAM, leukointegrin; immune response; infiammation; leukocyte adhesion deficiency; LAD; Type I diabetes; atherosclerosis; multiple sclerosis, asthma; psoriasis; beta2 integrin; lung inflammation; acute reepilaratory distress syndrome; Crohn's disease; rheumatoid arthritis; central nervous system injury; CDllc.
                                                                                        SIAGCLRFRCDVPSFSVQEELDFILKGNLSFGWVRQILQKKVSVVSVABIIFDISVYSQL
                                                                          PGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMS
                         SIAVCORIOCDIPFFGIOEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Use of novel anti-alpha integrin d monoclonal antibodies to inhibit macrophage infiltration and reduce inflammation at central nervous
                                                                                                                                                                                                                       ż
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 5; Fig 1; 270pp; English.
                                                                                                                                                                                                                       1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Van Der Vieren
                                                                                                                                                                                                                                                                                                  Human CD11c protein sequence.
                                                                                                                                                                                                                      AAB07361 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US27139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0193043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99US-035025
                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2000-387751/33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 system injury sites
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORP
                                                                                                                                                        E 1143
                                                                                                                                E 1144
                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200029446-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (ICOS-) ICOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gallatin MW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-JUL-1999;
                                                                                                                                                                                                                                                                         17-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-MAY-2000
                             1024
                                                     1023
                                                                             1084
                                                                                                                                1144
                                                                                                                                                        1143
                                                                                                                                                                                                                                                 AAB07361;
                                                                                                       1083
                                                                                                                                                                                                            AAB0736
                                                                                                                                                                                               RESULT
                                                                                                                                                                                                                                   임
                                                                                                     8
                                                                                                                                8
                                                                                                                                                     q
                            ò
                                                                             ઠે
```

```
RSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNC 1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            844
                               4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         604
                                                                                                                                                                                                                                                                             244
                                                                                                                                                                                                                                                                                                              245
                                                                                                                                                                                                                                                                                                                                                 304
                                                                                                                                                                                                                                                                                                                                                                                  305
                                                                                                                                                                                                                                                                                                                                                                                                                     364
                                                                                                                                                                                                                                                                                                                                                                                                                                                        365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            484
                                                                                                                                                                                                                                          185
                                                                                                                                    124
                                                                                                                                                                      127
                                                                                                                                                                                                         184
                                                                                                 67
                                                                  64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DPVSPIVLRINFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DSVIPILLRLNFTLVGKPLLAFRNLRPMLAALAQRYFTASLPFEKNCGADHICQDNLGIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FSFPGLKSLLVGSNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEGOKOGOLRSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              845 HLTC--CSAPVGSQGTWSTSCRINHLIFRGGAQITFLATFDVSPKAVGLDRLLLIANVSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ENNMPRINKTEFOLEL PVKYAVYMVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     306 SKPSQEHIFKVEDFDALKDIQNQLKEKIFAIEGTETISSSSFELEMAQEGFSAVFTPDGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           366 VLGAVGSFTWSGGAFLYPPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVQSLVLGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GREDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RLREGOIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIE
                                                                                                                                                                                                         125 LFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSK
                                                                                                                                                                                                                               LLGPT--QLTQRLPVSRQECPRQEQDIVFLIDGSGSISSRNFATWMNFVRAVISQFQRPS
                                                                                                                                                                                                                                                                                                                                                 ARKNAPKILUVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAP
                                                                                                                                                                                                                                                                             TLESLMOYSEEFRIHFTFKEFONNPNPRSLVKPITOLLGRIHTATGIRKVVRELFNITNG
                                                                                                                                                                                                                                                                                                                                                                                                                       SKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGP
                                                                                                                                     QCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCF
                                                                                                                                                          68 QCGYSTGACEPIGLQVPPEAVMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCF
                                                                  5 VLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLY
                                                                                    Gaps
                               9
                                 Indels
                                 Mismatches 294;
Score 3480; DB 21;
Pred. No. 7.5e-281;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ..
```

4.

64 67 185 244 245 304 305 364 365 424 425 484

124 127 184

ò a ठ 엄 ઠે g

```
protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QTRGGQVSVCPLPRGWR-RWWCDAVLYGEQGHPWGRFGAALTVLGDVNGDKLTDVVIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GEEENRGAVYLFHGVLGPSISPSHSQRIAGSQLSSRLQYFGQALSGGQDLTQDGLVDLAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     605 GAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         665 RIREGOIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             845 HLTC--CSAPVGSQGTWSTSCRINHLIFRGGAQITFLATFDVSPKAVGLDRLLLIANVSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                         LFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               185 TLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             366 VLGAVGSFTWSGGAFLYPPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVQSLVLGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FSFPGLKSLLVGSNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEGOKOGLRSL
arthritis, graft atherosclerosis, inflammatory bowel disease,
Crohn's disease, ulcerative colitis, immune complex alveolitis
and leukaemia. The present sequence is a Beta2 integrin alpha subunit
sequence included for comparison with the Beta2 integrin alphaD prote
                                                                                                                                                                                                                                                                                                                                                                                       68 QCGYSTGACEPIGLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  306 SKPSQEHIFKVEDFDALKDIQNQLKEKIFAIEGTETISSSSFELEMAQEGFSAVFTPDGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GEEDNRGAVYLFHGTSGSG1SPSHSQR1AGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                                       5 VLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLY
                                                                                                                                                                                                                                                                                                 QCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAP
                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                             9
                                                                                                                                                                               Length 1163;
                                                                                                                                                                                                                           Indela
                                                                                                                                                                               58.4%; Score 3480; DB 23;
61.1%; Pred. No. 7.5e-281;
                                                                                                                                                                                                      al Similarity 61.1%; Pred. No. 7.5e-281; 697; Conservative 144; Mismatches 294;
                                                                                                                                       1163 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   845
                                                                                           sednences
                                                                                                                                                                                                                                                                                                                                                                65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            905
                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                      125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   485
                                                                                                                                                                                 Query Match
                                                                                                                                                                                                        Local
                                                                                                                                                                                                        Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
    88888888
                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to promoting locomotor recovery, inhibiting locomotor damage, limiting locomotor impairment, or limiting autonomic and sensory dysfunction following spinal cord injury by administering an anti-alpha d (Beta2 integrin alpha2 subunit) monoclonal antibody to a spinal cord injury victim. The method also involves the use of a ligand selected from ICAM-R or VCAM-1 (intracellular cell adhesion molecule). The method is useful for promoting locomotor recovery, inhibiting locomotor damage, limiting compoting locomotor recovery, inhibiting locomotor damage, limiting locomotor impairment, or limiting autonomic and sensory dysfunction following spinal cord injury. In particular, the spinal cord injury. Comprises compression of the spinal cord. The antibodies are also useful for reducing inflammation at the site of a central nervous system injury. The specification also details the identification of Beta2 integrin alphaD cDNAs and proteins, for use in raising the antibodies. Beta2 integrins are implicated in diseases such as LAD (leukcoyte adhesion deficiency, inflammatory response, diabetes, multiple sclerosis,
                                                                                                                                     1143
                                                                                                                                                                                 1142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Betaz integrin, alphaD subunit, CD11c subunit; CD11b subunit; LAD; leukocyte adhesion deficiency; inflammatory response; dabetes; multiple sclerosis, arthritis; graft atherosclerosis; neuroprotective; inflammatory bowel disease; Crohn's disease; ulcerative colitis; immune complex alveolitis; leukaemia; ICAM-R; VCAM-1; anti-inflammatory; intracellular call adhesion molecule; vascular cell adhesion molecule; automontor recovery; locomotor damage; locomotor impairment; automomic dysfunction; sensory dysfunction; spinal cord injury.
                                                                                                                                                            RDLPVSINFWVPVELNQEAVWMDVEVSHPQNPSLRCSSEKIAPPASDFLAHIQKNPVLDC
                                            SIAVCORIOCDIPFFGIOEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLL
                                                                                                                                     PGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMS
                                                                        e of an anti-alpha-d monoclonal antibodies for promoting locomotor covery, inhibiting locomotor damage, limiting locomotor impairment, limiting autonomic and sensory dysfunction following spinal cord
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human Beta2 integrin alpha¢D11c subunit.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 5; Page 194-198; 270pp; English
                                                                                                                                                                                                                                                                                                                                                                                     Ä
                                                                                                                                                                                                                                                                                                                                                                                     1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Vieren
                                                                                                                                                                                                                                                                                                                                                                                     Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-OCT-2001; 2001WO-US32059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13-OCT-2000; 2000US-0688307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Van Der
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-463260/49.
                                                                                                                                                                                                                                                                                                                                                                                     standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORP
                                                                                                                                                                                                                                                                       1143
                                                                                                                                                                                                                             E 1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200230980-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (ICOS-) ICOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           27-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-APR-2002
                                                                                                                                                                                                                                                                          ы
                                            1024
                                                                                        1023
                                                                                                                                     1084
                                                                                                                                                                               1083
                                                                                                                                                                                                                             1144
                                                                                                                                                                                                                                                                       1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  recovery,
                                                                                                                                                                                                                                                                                                                                                                                     ABG61470
                                                                                                                                                                                                                                                                                                                                                                                                                                 ABG61470;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gallatin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          injury
                                                                                                                                                                                                                                                                                                                                         RESULT 10
                                                                                                                                                                                                                                                                                                                                                                  ABG61470
```

485

544 544 604 604 664 664 724 724 844

844 904 902 963

```
The invention describes genes (I) which are differentially regulated in prostate cancer. (I) Is useful for diagnosing a prostate cancer in a sample comprising prostate litisate, which involves determining the number of target genes which are differentially-regulated in the sample, where the number is indicative of the probability that the sample comprises of the number cancer. (I) Is useful for assessing a therapeutic or preventive intervention in a subject having a prostate cancer. Which involves determining the expression levels in a sample comprising prostate cancer. Or farget genes which are differentially-regulated in prostate cancer. Preferably, the expression levels of at least 10 genes are determined.

(I) is also useful for identifying agents that modulate a biological activity of a polypeptide differentially-regulated in prostate cancer cells which involves contacting a polypeptide differentially-regulated in prostate cancer cells with a test agent under conditions effective for the test agent to modulate a biological activity of the polypeptide, and
                                                                                                                                                                                 RSLPISLVFLVPVRLNQTVIMDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNC 1023
SIAVCORIOCDI PFFGI QEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLL
                                                                                                                                   Novel genes which are differentially regulated in prostate cancer, useful for diagnosing prostate cancer in prostate tissue sample and assessing therapeutic or preventive intervention in prostate cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Prostate cancer; gene expression; differential regulation; molecular marker; drug target; cancer detection; cancer diagnosis; cancer staging; cancer assessing; cancer monitoring.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Protein differentially regulated in prostate cancer #9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 225-228; 416pp; English.
                                                                                                                                                                                                                                                                                                                                                                          Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (ORIG-) ORIGENE TECHNOLOGIÈS INC.
                                                                                                                                                                                                                                                                                                                                                                          ABU07406 standard; Protein; 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-APR-2001; 2001US-281731P
06-APR-2001; 2001US-281732P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-APR-2002; 2002WO-US10824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-058520/05.
                                                                                                                                                                                                                                                      E 1144
                                                                                                                                                                                                                                                                                     Ė 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200281638-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Jay
                                                                                                                                                                                                                                                                                                                                                                                                                                           28-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-OCT-2002.
                                                                                                                                                   1023
                                                                                                                                                                                     1084
                                                                                                                                                                                                                    1083
                                                                                                                                                                                                                                                      1144
                                                                                                                                                                                                                                                                                       1143
                                                                                                                                                                                                                                                                                                                                                                                                           ABU07406;
                                                   964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sun Z,
                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                              Db
                                                                                                                                                                                 ò
                                                                                                                                                                                                                    음
                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                a
                                                                                                                  ò
```

```
determining whether the test agent modulates the biological activity.

(1) is useful as molecular markers, as drug targets, and for detecting, diagnosing, staging, grading, assessing, monitoring, prognosticating, predisposition to diseases and prognosticating, preventing or treating, determining predisposition to diseases as prognostic test to assay for presence of cancer conditions especially relating to prostate cancer. (1) and its expression products are used in the diagnostic test to assay for presence of cancer conditions ascending in the same sections, in biopsy sample, in total RNA, in lymph, in blood etc. (1) is useful for assessing cancer e.g., to determine the type of cancer, its stage of development, the nature of genetic defect, etc. The polypeptide encoded by (1) can be used as target for therapy or drug discovery. (1) can also be used for expressing the polypeptide and thus con searching specific binding partners of the polypeptide and thus to searching specific applications to treat prostate cancer. The claentification of specific genes, and groups of genes, expressed in cathways physiologically relevant to prostate cancer permits the contexpect of functional and disease pathways and the delineation of trargets in these pathways which are useful in diagnostic, therapeutic, and clinical applications. This is the amino acid sequence of a protein contexpect of a protein contexpect.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               124
                                                                                                                                                                                                                                                                                                                                                                                                                                                67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ARKNAPKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        68 QCGYSTGACEPIGLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RLREGOIOSVVTYDLALDSGRPHSRAVFNETKNSTRROTOVLGLTQTCETLKLQLPNCIE
                                                                                                                                                                                                                                                                                                                                                                                                                  5 VLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLY
                                                                                                                                                                                                                                                                                                                                                                                                                                        QCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCF
                                                                                                                                                                                                                                                                                                                                                     Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                     58.4%; Score 3478; DB 24;
61.0%; Pred. No. 1.1e-280;
tive 136; Mismatches 303;
                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 61.0%; Pro
Matches 696; Conservative 136;
                                                                                                                                                                                                                                                                                                                          1163 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         305
                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
         $$$$$$$$$$$$$$$$$$$$$$$$
                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
```

```
RLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIE 724
                                                                                                                                                                                                                                                                                                                                                                                     65 DCAAATGMCQPIPLHIRPEAVNMSLGLTLAASTNGSRLLACGPTLHRVCGENSYSKGSCL
                                                                                                                                                                                                                                                                                                                                                                                                                                  ARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        364 FLGAVGSFSWSGGAFLYPPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVQNLVLGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S VLLLSVLASYHGFNLDVEEPTIFQEDAGGFGQSVVQFGGSRLVVGAPLEVVAANQTGRLY
                                                                                                                                                                                                                                                                                                                                                                                                                     LFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAQGHULLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRD
                                                                                                                                                                                                                                                                                                                                                                        QCDYSTGSCEP1RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                                                                                        5 VLLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLY
                                                                                                                                                                               A probe based on a partial cDNA clone (given in AAQ91727) of canine alpha-TM1 was used to screen a human spleen cDNA library to identify clone 19A2 encoding the beta-1 integrin alpha-subunit, alpha-d. The cDNA was manipulated to allow expression of recombinant alpha-d subunit in COS and CHO cells.
                                                                                                             Alpha sub-unit polypeptide of human beta 2 integrin - used to identify potential antiinflammatory agents, for the treatment of graft arteriosclerosis, inflammatory bowel disease, asthma, etc.
                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                            59.0%; Score 3455; DB 16; 59.9%; Pred. No. 9.1e-279;
                                                                                                                                                                                                                                                                                        il Similarity 59.9%; Pred. No. 9.1e-279; 684; Conservative 162; Mismatches 287;
                                                                                                                                                             Claim 7; Page 82-87; 172pp; English
                                                         Ξ
                                                         Vieren
94US-0286889
93US-0173497
                                                        Van Der
                                                                             WPI; 1995-240603/31.
N-PSDB; AAQ91712.
                                                                                                                                                                                                                                                       1161 AA
                                                        Gallatin WM,
 05-AUG-1994;
23-DEC-1993;
                                                                                                                                                                                                                                                                             Query Match
Best Local S:
Matches 684
                                                                                                                                                                                                                                                                                                                                                                                                                     125
                                                                                                                                                                                                                                                                                                                                                                                                                                            125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   185 '
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         365
                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
 셤
                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                     963
                                                                                                                                                                         962
             784
                                  784
                                                                                                      904
                                                                                                                                                                 RSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNC
                                                                                                                                                                                                                                                          DPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSIT
                          FSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW
                                                                      FSFPGLKSLLVGSNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEGQKQGQLRSL
                                                                                                      RLACESASSTEVSGALK$TSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTS
                                                                                                                                                  ENNMPRINKTEFOLEL PVKYAVYMVVTSHGVSTKYLNFTAS - ENTSRVMQHQYQVSNLGQ
                                                                                                                                                                                                                                          SIAVCORIOCDIPFEGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLL
                                                                                                                                                                                                                                                                                         PGQGAFVRSQTETKVEPPEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               antiinflammatory; arteriosclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   this region is homologous to the insert common to CHila, b, c and may be a site for interaction with ICAM family proteins"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "putative cation binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "putative cation binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "extracellular domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note= "transmembrane region"
1129..1161
/note= "cytoplasmic domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cation
                                                                                                                                                                                                                                                                                                                                                                                                                      Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            bowel disease; asthma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  common to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "putative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                subunit;
                                                                                                                                                                                                                                                                                                                                                                                                                       1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human beta-2 integrin alpha-d.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "this
                                                                                                                                                                                                                                                                                                                                                                                                                     AAR78166 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94WO-US14832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "e:
150..352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "p:
518..527
/note= "p:
592..600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Beta-2 integrin alpha-d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note= 1
1109..1
                                                                                                                                                                                                                                                                                                                                                              E 1143
                                                                                                                                                                                                                                                                                                                                        E 1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Binding-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21-DEC-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Binding-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Binding-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO9517412-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-DEC-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29-JUN-1995
                                                                                                                                                                                                                                              1024
                                                                                                                                                                                                                                                                   1023
                                                                                                                                                                                                                                                                                          1084
                                                                                                                                                                                                                                                                                                                 1083
                                                                                                                                                                                                                                                                                                                                                              1143
                                  725
                                                         785
                                                                                                      845
                                                                                                                             845
                                                                                                                                                     905
                                                                                                                                                                         903
                                                                                                                                                                                                964
                                                                                                                                                                                                                       963
                                                                                                                                                                                                                                                                                                                                                                                                                                             AAR78166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Key
Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo
                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                          AAR78166
ID AAR7
                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                   g
                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                          셤
                                                         ò
                                                                                                   ò
                                                                                                                                                  ઠે
                                                                                                                                                                                              ò
                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                             õ
```

Gaps

8

64 64 124 124 184 183 244

```
Gallatin WM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     કે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                    1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                     PGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMS 1143
                                                                                                                                                                                                                                                                                                                   1023
                                                                                                                                                                                                                                                                                                                                    1083
                                                                                                                                                841
                                                                                                                                                                                904
                                                                                                                                                                                                                                               963
                                                784
                                                                               781
                                                                                                                844
               721
                                                                                                                                                                                                                                                                                                                                                                                                        1018 SIADCLQFRCDVPSFSVQEELDFTLKGNLSFGWVRFTLQKKVLVVSVAEITFDTSVYSQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DPVSPIVLRINFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSIT
                                                                 FSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW
                                                                                                                                   RLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTS
                                                                                                                                                                                                  ENNMPRINKTEFQLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQ
                                                                                                                                                                                                                                                                     RSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNC
                                                                                                                                                                                                                                                                                                                                                                                     SIAVCORIOCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTABILFNDSVFTLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "region homologous to the I (insertion)
domain common to CD11a, CD11b and CD11c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Beta 2 integrin alpha d subunit; human; cell migration;
cell adhesion; phagocytosis; diabetes; archerosolarosis;
multiple sclerosis; astrosis; portiasis; lung inflammation;
acute respiratory distress syndrome; rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CD11c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17...108 | Xrracellular_domain | 1.09...128 | Xrracellular_domain | 1.09...128 | Xransmembrane_domain | 1.00el = "homologous to the human | Note = "homologous to the human | Xrrace = "homologous to the human | 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /label= Cytoplasmic_domain
150..352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human beta 2 integrin alpha d subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAW23049 standard; Protein; 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   96US-0605672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97WO-US02713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ..116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1144 E 1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1138 D 1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-FEB-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO9731099-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24-FEB-1998
                                                                                                                                                                                                                                                                                     006
                                                                                                                                                                                                                                                                                                                      964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1078
                                                                                                                                                                                                                                                                                                                                                                                        1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW23049;
                                                                                                                    785
                                                                                                                                                                                                                                                    905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Key
Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAW23049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                               셤
                                                                                                                  ò
                                                                                                                                              g
                                                                                                                                                                             ઠે
```

```
483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This polypeptide comprises a novel human beta 2 integrin subunit, designated alpha d. Its sequence was deduced from a cDNA clone (see AAT79220) isolated from a spleen cDNA library. Alpha d is involved in cell migration, phagocytosis and cell-cell interaction. Recombinant alpha d polypeptides can be expressed in transformed compounds that modulate alpha d activity or which modulate the interaction between alpha d activity or which modulate the interaction between alpha d activity or which modulate the compounds that modulate alpha d activity or which modulate the is applicable to disease states in which alpha d binding, or localised accumulation of cells which express alpha d, is considered accumulation of cells which express alpha d, is multiple sclerosis, asthma, psoriasis, lung inflammation, acute respiratory distress syndrome and rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      65 DCAAATGMCQPIPLHIRPEAVNMSLGLTLAASTNGSRLLACGPTLHRVCGENSYSKGSCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QTRGGOVSVCPLPRGQRARWQCDAVLYGEQCQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             185 TLFSLMQXSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      364 FLGAVGSFSWSGGAFLYPPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVQNLVLGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RYQHIGLVAMFRONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5 VLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                     rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1161;
                                                                                                                                                  Hybridoma 199M and antibody secreted by it - specific for beta2 integrin subunit, useful to detect subunit in cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               58.0%; Score 3455; DB 18;
59.9%; Pred. No. 9.1e-279;
iive 162; Mismatches 287;
                                                                                                                                                                                                                                          Example 5; Page 116-120; 222pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              684; Conservative 162;
                                        Ξ
                                        Vieren
                                        Van Der
                                                                                                                                                                                                    modulate its activity
                                                                                     WPI: 1997-435154/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1161 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
(ICOS-) ICOS CORP.
                                                                                                          N-PSDB, AAT79220
```

```
QTRGGOVSVCPLPRGGRVQWQCDAVLRGEQGHPWGRFGAALTVLGDVNEDKLIDVAIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GEEDNRGAVYLFHGTSGSG1SPSHSQR1AGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gallatin WM,
                                                                                                                                                                                                                                                                                                                                                                                                                            Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       605
 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNC 1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIAVCORIOCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLL 1083
                                                                                                         724
                                                                                                                                           721
                                                                                                                                                                                 784
                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                               904
                                                                                                                                                                                                                                                                                                                                                                                                       963
                                                                                                      ||| ::| |||||||||||| ::
ENNKASSSKATFQLELPYKYAVYTMISRQEESTKYFNFATSDEKKMKEAEHRYRVNNLSQ
                                                                                                                                                                                                      GEQENRGAVYLFHGASESGISPSHSQRIASSQLSPRLQYFGQALSGGQDLTQDGLMDLAV
                                                        DPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSIT
                                                                                                                                                                                                                                                                                                                                                                                                       ENNMPRINKTEFOLELPVKYAVYMVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |||| | : :||:| | :||| | :|||| | | :| :|| | | :|| | | :|| | | :|| | | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PGQGAFVRSQTETKVEPFEVPNPLPL1VGSSVGGLLLLALITAALYKLGFFKRQYKDMMS
                                     GAQGHVLLLRSQPVLRVXAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQXSTRD
                                                                                                                                                                                                                                                     FSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW
                                                                                                                                                                                                                                                                                                                             RLACESASSTEVSGALKŠTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alpha-d; beta-2 integrin alpha subunit; extracellular alpha-d; immunoglobulin; fusion protein; binding molecule; antibody; immunohistochemical analysis; diabetes; atherosclerosis; asthma; multiple sclerosis; psorias;s; lung inflammation; arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   syndrome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               95US-0482293.
93US-0173497.
94US-0286889.
94US-0362652.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   distress
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 95US-0482293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAW72825 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   acute respiratory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 E 1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human alpha-d.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-JUN-1995;
23-DEC-1993;
05-AUG-1994;
21-DEC-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (ICOS-) ICOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ω
                                                                                                                                                                                                                                                                                                                                                                 842
                                                                                                                                                                                                                                                                                                                                                                                                     905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1078
                                                                                                                                                                                                                   722
                                                                                                                                                                                                                                                       785
                                                                                                                                                                                                                                                                                                                               845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAW72825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 14
유
                                   ઠે
                                                                    요
                                                                                                                                      q
                                                                                                                                                                             ò
                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
```

```
describes: (1) an antibody that specifically binds alpha d, which is a beta 2 integrin alpha-subunit polypeptide; (2) a monoclonal antibody as in (1); (3) an anti-idiotype antibody specific for the monoclonal antibody of (2); (4) a hybridoma cell line producing the monoclonal antibody of (2). Antibodies specific for alpha d can be used in immunohistochemical analysis to localise alpha d to subcellular compartments or individual cells within tissues. Substances that modulate alpha d binding (which may include antibodies) can be used to treat diabetes, atherosclerosis, multiple sclerosis, asthma, psoriasis, lung inflammation, acute respiratory distress syndrome or arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIA 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TLESLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              364 FLGAVGSFSWSGGAFLYPPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVQNLVLGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                              in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ..
80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 1161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                           integrin alpha-subunit d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 58.0%; Score 3455; DB 19; Best Local Similarity 59.9%; Pred. No. 9.1e-279; Matches 684; Conservative 162; Mismatches 287;
                                                                                                                                                                                                                                                                                             human alpha d.
                                                                                                                                                                                                                                   English
                                                                                                                                                                                                                                Example 5; Column 61-66; 106pp;
                                                                                                                                                                                                                                                                                             present sequence represents
Ξ
   Van Der Vieren
                                                                                                                                                                             analysis
                                                                                                                                           Antibodies specific immunohistochemical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1161 AA
```

124 124 184 183 244

64

```
WPI; 1998-206565/18.
N-PSDB; AAV35236.
                                                                                                                                                                                                  1161 AA;
                       CORP.
    05-AUG-1994;
21-DEC-1994;
                        SODI (-SODI)
                                                                                                                                                                                                                                                                                                                                                                                                                                                              484
                                                                                                                                                                                                                                                                 65
                                                                                                                                                                                                                                                                                                       125
                                                                                                                                                                                                                                                                                                                                                         244
                                                                                                                                                                                                                                                                                                                                                                                  304
                                                                                                                                                                                                                                                                                                                                                                                               365
                                                                                                                                                                                                                                                                                                                                                                                                            364
                                                                                                                                                                                                                                                                                                                                                                                                                        425
                                                                                                                                                                                                                                                                                                                                                                                                                                     424
                                                                                                                                                                                                                                                                                                                                                                                                                                                 485
                                                                                                                                                                                                                                                                                          125
                                                                                                                                                                                                                                                                                                                    185
                                                                                                                                                                                                                                                                                                                                             245
                                                                                                                                                                                                                                                                                                                                                                     305
                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
셤
                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                        ઠે
                                                                                                                                                     1083
                                                                                                                                                                   1077
                                                                                                                                                                                1143
                                                                                                                                         1017
                                                                                                                                                                                             1137
                                                                                                                            RSLPISLVFLVPVRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNC 1023
                                                                                       899
                                                                                                    963
                                                                                                                 959
                                                                          904
                        784
                                     781
       RLREGOIOSVVTYDLALDSGRPHSRAVFNETKNSTRROTOVLGLTQTCETLKLOLPNCIE 724
                                                                                                                                                                                                                                                                                                                                                                                                       of CD11 subunits"
                                                 FSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW
                                                         ENNMPRINKIEFQLELPVKYAVYMVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQ
                                                                                                            SIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLL
                                                                                                                                                              PGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMS
                                                                                                                                                                                       DPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSIT
                                                                                                                                                                                                                                                                                           Human Beta-integrin alpha-d subunit protein isolated from clone 19A2.
                                                                                                                                                                                                                                                                                                       Beta-integrin alpha-d subunit; human; modulator; treatment; p
type-I diabetes; atherosclerosis; multiple sclerosis; asthma;
lung inflammation; acute respiratory distress syndrome;
                                                                                                                                                                                                                                                                                                                                                                                                       domain
                                                                                                                                                                                                                                                                                                                                                                              subunit"
                                                                                                                                                                                                                                                                                                                                                                                                       insertion
                                                                                                                                                                                                                                                                                                                                                                             alpha-D
                                                                                                                                                                                                                                                                                                                                                                              "Beta-integrin
                                                                                                                                                                                                                                                                                                                                                                                                        ဌ
                                                                                                                                                                                                                                                                                                                                                                                          /label= extracellular
                                                                                                                                                                                                                                                                                                                                                     location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                             1129..1161
/label= cytoplasmic
                                                                                                                                                                                                                                                      1161 AA
                                                                                                                                                                                                                                                                                                                                                                                                       "homologous
                                                                                                                                                                                                                                                                                                                                                           l..16
/label= signal
                                                                                                                                                                                                                                                      AAW65089 standard, Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          95US-0485618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      95US-0485618
                                                                                                                                                                                                                                                                                                                                                                              /note= "Be
17..1108
                                                                                                                                                                                                                                                                                                                                                                         17..1161
                                                                                                                                                                                                                                                                                                                                                                                                 50..352
                                                                                                                                                                                                                                                                                                                                                                                                         /note=
                                                                                                                                                                                                                                                                                                                             rheumatoid arthritis
                                                                                                                                                                                                                   :
D 1138
                                                                                                                                                                                                           E 1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-JUN-1595;
                                                                                                                                                                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                US5728533-A
                                                                                                                                                                                                                                                                                28-SEP-1998
                                                                                                                                                                                1084
                                                                                                                 900
                                                                                                                                                                    1018
                                                                                                                                                                                                           1144
                                                                                                                                                                                                                        1138
                                                                                                                                                                                                                                                                  AAW65089;
                                      722
                                                                782
                                                                                         842
                                                                                                      905
                                                                                                                                                       1024
                                                   785
                                                                             845
                                                                                                                                                                                                                                                                                                                                                         Peptide
 999
                         725
                                                                                                                                                                                                                                                                                                                                                                        Protein
                                                                                                                                                                                                                                                                                                                                                                                     Domain
                                                                                                                                                                                                                                                                                                                                                                                                 Domain
                                                                                                                                                                                                                                                                                                                                                                                                               Domain
                                                                                                                                                                                                                                                                                                                                         Homo
                                                                                                                                                                                                                                                AAW65089
                                                                                                                                                                                                                                                            Dp
                                                                            ò
                                                                                        g
                                                                                                                              ò
                                                                                                                                          움
                                                                                                                                                     õ
                                                                                                                                                                                 ò
                                                                                                                                                                                             셤
                                                                                                                                                                                                          ò
                                                                                                                                                                                                                     요
                         8
                                                   ò
                                                                                                      ò
```

```
This sequence represents a novel human beta-integrin alpha-d subunit. This sequence is used in a method for identifying compounds that modulate the interaction of alpha-d with a binding parener of alpha-d which provises contacting an alpha-d polypeptide with an alpha-d binding parener, one of which is immobilised and the other of which is labelled, in the presence of a test compound, and determining if the compound affects binding between the alpha-d polypeptide and alpha-d binding partner, where the alpha-d polypeptide is alpha-d or its fragment comprising the cytoplasmic, transmembrane or extracellular domain of alpha-d. Compounds that modulate alpha-d binding could be used to treat diseases such as type-I diabetes, atherosclerosis, multiple sclerosis, syndrome and rheumation, acute respiratory distress
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QCDYSTGSCEDIRLQVPVEAVMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      65 DCAAATGMCQPIPLHIRPEAVNMSLGLTLAASTNGSRLLACGPTLHRVCGENSYSKGSCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5 VLLLSVLASYHGFNLDVEEPTIFQEDAGGFGQSVVQFGGSRLVVGAPLEVVAANQTGRLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5 VLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1161;
                                                                                                                                                                                                                                                          Screening assay for modulators of integrin binding - using immobilised or labelled alpha-d polypeptide, useful for, e.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 58.0%; Score 3455; DB 19; Best Local Similarity 59.9%; Pred. No. 9.1e-279; Matches 684; Conservative 162; Mismatches 287;
                                                                                                                                                                                                                                                                                                                                                          Example 5; Fig 1A-D; 106pp; English.
                                                                                                                                              Ξ
93US-0173497.
94US-0286889.
94US-0362652.
                                                                                                                                              Gallatin WM, Van DER VIEREN
                                                                                                                                                                                                                                                                                                              treating type-I diabetes
```

```
1017
                                                                                                                                                                                                           SIAVCQRIQCDIPFFGIQËEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLL 1083
                                                                                                                                                                                                                                   RSLPISLVFLVPVRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNC 1023
                                                                                                                                           899
                                                                                                                                                       ENNMPRTNKTEFQLELPVKYAVYMVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQ 963
                                      663
                                                                             784
                                                                                                                  841
                                                                                                                               904
  604
                           664
                                                   724
                                                                721
                                                                                         781
                                                                                                     FSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW 844
RLREGOIOSVVTYDLALDSGRPHSRAVFNETKNSTRROTOVLGLTOTCETLKLOLPNCIE
                                                                             DPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSIT
                                                                                                                               RLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTS
                          GAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRD
                                                                                                                                                                                                                                                                         .
D 1138
                                                                                                                                                                                                                                                              E 1144
                                                              664
                                                                                                               782
                                                                                                                                                                 900
                                                                                                                                                                               964
                                                                                                    785
                                                                                                                                                        905
                                                                                                                                                                                                           1024
                                                                                                                                                                                                                                                             1144
                                                                                                                                           842
                                                                                                                                                                                              960
                                                                                                                                                                                                                                                                          1138
                                                   665
                                                                           725
                                                                                        722
                                                                                                                               845
                                                                           8 8 8
                                                                                                                                                                                                                     8 8
                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                             ò
                                    g
                                                            qq
            셤
                         ઠ
                                                 ò
```

Search completed: November 25, 2003, 14:16:22 Job time: 40.8086 secs

```
Sequence 55, Appl
Sequence 51, Appl
Sequence 37, Appl
Sequence 37, Appl
Sequence 46, Appl
Sequence 46, Appl
Sequence 103, Appl
Sequence 103, Appl
Sequence 103, Appl
Sequence 101, Appl
                                                                                                                                                                                                 Sequence 103, App
Sequence 35, Appl
Sequence 35, Appl
Sequence 2, Appli
Sequence 5, Appli
Sequence 43, Appl
Sequence 43, Appl
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 313, Appl
Sequence 313, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 9; Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INCOMENDATION:
APPLICANT: Gallatin, Michael W.
APPLICANT: Gallatin, Michael W.
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. US50020062008Alel Human 2
FILE REFERENCE: 27866/35004 US/09/350,259
CURRENT APPLICATION NUMBER: US/09/350,259
CURRENT APPLICATION NUMBER: 09/193,043
EARLIER PILING DATE: 1999-07-08
EARLIER FILING DATE: 1998-11-16
EARLIER PILING DATE: 1994-12-23
EARLIER APPLICATION NUMBER: 08/286,889
EARLIER APPLICATION NUMBER: 08/286,889
EARLIER APPLICATION NUMBER: 08/286,889
EARLIER FILING DATE: 1994-08-05
EARLIER FILING DATE: 1994-08-05
EARLIER FILING DATE: 1994-08-05
EARLIER FILING DATE: 1994-08-05
EARLIER APPLICATION NUMBER: 08/362,652
EARLIER APPLICATION NUMBER: 08/943,363
EARLIER APPLICATION NUMBER: 08/943,363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                Query Match
100.0%; Score 5956; Best Local Similarity 100.0%; Pred. No. 0; Matches 1153; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                     ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 3, Application US/09350259 Patent No. US20020062008A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 3
                                                                                                                                                             413
413
1179
1151
1189
1189
1181
216
240
1034
191
191
707
707
223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 1153
TYPE: PRT
ORGANISM: Homo sapiens
                      1229.5
1229.5
1189.5
1189.5
                                                                                                                                                                                     1163
1108.5
1108.5
1102.5
1102.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-350-259-3
                                             3264
3264
3251.5
3251.5
                                                                                                                                                                                                                                                             1042
1036
987
979
979
875
875
3439.5
3439.5
3270.5
3270.5
                                                                                                            3243
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      දු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1, Appli
Sequence 3, Appli
Sequence 176, Appl
Sequence 4, Appli
Sequence 6, Appli
Sequence 6, Appli
Sequence 6, Appli
Sequence 4, Appli
Sequence 3, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 204, App
Sequence 4, Appli
Sequence 4, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Appli
Appli
                                                                                November 25, 2009, 14:20:45; Search time 26.4941 Seconds (without alignments) 8026.803 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                         1 MALRVLLLTALTLCHGFNLD.....FKRQYKDMMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2, A
Sequence 2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Description
                                                                                                                                                                                                                                                                                                                                                          Published Applications AA:*

| Cgn2_6/ptodeta/1/pubpaa/PCT_RW PUB.pep:*
| Cgn2_6/ptodeta/1/pubpaa/PCT_RW PUB.pep:*
| Cgn2_6/ptodeta/1/pubpaa/PCT_RW PUB.pep:*
| Cgn2_6/ptodeta/1/pubpaa/US06_PUBCOMB.pep:*
| Cgn2_6/ptodeta/1/pubpaa/US06_PUBCOMB.pep:*
| Cgn2_6/ptodeta/1/pubpaa/US06_PUBCOMB.pep:*
| Cgn2_6/ptodeta/1/pubpaa/US08_NRW PUB.pep:*
| Cgn2_6/ptodeta/1/pubpaa/US08_NRW PUB.pep:*
| Cgn2_6/ptodeta/1/pubpaa/US08_NRW PUB.pep:*
| Cgn2_6/ptodeta/1/pubpaa/US08_NRW PUB.pep:*
| Cgn2_6/ptodeta/1/pubpaa/US09_PUBCOMB.pep:*
| Cgn2_6/ptodeta/1/pubpaa/US09_NRW PUB.pep:*
| Cgn2_6/ptodeta/1/pubpaa/US09_NRW PUB.pep:*
| Cgn2_6/ptodeta/1/pubpaa/US09_NRW PUB.pep:*
| Cgn2_6/ptodeta/1/pubpaa/US10A_PUBCOMB.pep:*
           GenCore version 5.1.6
Copyright (c) µ993 - 2003 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-902-481A-1
US-09-891-943-3
US-10-144-259-30
US-10-207-655-176
US-09-902-481A-6
US-09-902-481A-5
US-09-902-481A-4
US-09-902-481A-3
US-09-902-481A-3
US-09-902-481A-3
US-09-902-481A-3
US-09-902-481A-3
US-09-902-481A-3
                                                                                                                                                                                                                                                 hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-891-943-4
US-09-350-259-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-891-943-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-350-259-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-350-259-3
                                                                                                                                                                                                                        673684 segs, 184443283 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUMMARIES
                                                                                                                                                                                                                                                                                                                                        вишшатіев
                                                          OM protein - protein search, using sw model
                                                                                                                                                                                  BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                              Post-processing: Minimum Match 0%
Maximum Match 190%
Listing first 45 su
                                                                                                                                                                                                                                                                          length: 0
length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9211119
                                                                                                                                     US-09-902-481B-1
5956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1153
1153
1153
1153
11153
11137
11137
11137
1163
1163
1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Total number of
                                                                                                                                     Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                                                                                        Minimum DB seq
Maximum DB seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score
                                                                                                                                                             Sequence:
                                                                                                                                                                                                                                                                                                                                                                 Database
                                                                                   Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 o
N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Result
```

ö

```
241 ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSROEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MALRVILLITALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                              Sequence 1, Application US/09902481A

Sequence 1, Application No. US20030054440A1

Sequence 1, Application No. US20030054440A1

Sequence 1, Application No. US2003005440A1

Sequence 1, Application No. US2003005440A1

APPLICANT: Shimaoka, Motomu 1, APPLICANT: Shimaoka, Motomu 2, APPLICANT: Shimaoka, Motomu 3, APPLICANT: Shimaoka, Motomu 3, APPLICANT: Mayo, Stephen 3, TITLE OF INVENTION: NOVEL PROTEINS WITH INTEGRIN-LIKE ACTIVITY PRILE REPRESENCE: A-70586-1KFF/RMS/RWK

CURRENT APPLICATION NUMBER: US/09/902,481A

CURRENT FILING DATE: 2001-07-09

PRIOR FILING DATE: 2001-07-09

PRIOR FILING DATE: 2000-07-07

NUMBER OF SEQ ID NOS: 1

SEGURANDER: Patentin version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indela
                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 5956;
100.0%; Pred. No. 0;
ive 0; Mismatches
 1141 MMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity 100.
Matches 1153; Conservative
                                                                                                                                                                                                                                                                                                                          TYPE: PRT ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                     FEATURE:
NAME/KEY: mat_peptide
LOCATION: (17)..()
OTHER INFORMATION:
                                            RESULT 2
US-09-902-481A-1
                                                                                                                                                                                                                                                                                                                                                                                                              US-09-902-481A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                              SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 960
                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              960
                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                         180
                                                                                                                                240
                                                                                                                                                             300
                                                                                                                                                                                          300
                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              999
                                                                                                                                                                                                                                                                                                                                                                                                                                                          IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD
                                                                                                                                                                                                                                                                                                                                                                                                 HYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUTSENNMPRINKTERQLELPVKXAVYMVTSHQVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VNCSIAVCORIQCDIPFFGIQEFFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                 HYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VNCSIAVCQRIQCDIPPFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                             GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                   KKSKTLFSLMOYSEEFIHFTFKEFONNPNPRSLVKPITOLLGRTHTATGIRKVVRELFN
                                                                                                                   181 KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                             DGEKFGDPLGYEDVI PEADREGVIRYVI GVGDAFRSEKSRQEL
                                                                                                                                                                            NTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT
                                                                                                                                                                                                                                                                               SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                              SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                         LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCIEDPVSPIVLRINFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MMSEGGPPGAEPQ 115:
                                                                                                                                                             ITNGARKNAFKILVVI
                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1141
                                                                                                    181
                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                            121
                                                                                                                                                             241
                                                                                                                                                                                                                     301
                  61
                                                                       121
```

임

g

6 6 6 6

8 8 8 8

ò

g

ò

g

ò

q

ò

g

8 B 6

ò

g

ઠે

8 6 8

8 6 8

ठे

g

ò

ò

ö

09 09

MALRVLLTALTLCHGFNLDTENAMTFOENARGFGOSVVOLOGSRVVVGAPQEIVAANQR 60	181 KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLIGRTHTATGIRKVVRELFN 240	301 NTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT 360	421 LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP 480	481 HYRQTRGGOVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDVLTDVA 540 541 IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV 600 541 IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV 600 541 IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV 600	01 DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK 6	IRRELEGGGIGSVVIIDEADDSGRFGSKAVTREIANGIKROIGVEGELGIGE INLAGER VIEDPVSPIVERINFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNGGNDNICQDD 7 [	781 LSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS 840	ORSWILLAGESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA 9  NVTSENNWPRINKTEFOLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMOHQYQVSN 9		S-S &
8 6 8 6 6	8 8 8	8 8 8 8	& 8 &	888	\$ 8 \$ ;	8 6 8	<u>ራ</u> 8 6	\$ 8 <b>8</b>	9 % 9	8 8 8
OY 601 DLTVGAQGHVLLLRSOPVLRVKAIMEENPREVARNVFECNDOVVKGKEAGEVRVCLHVQK 660	781 LSITESPMSLDCLVVQGPREFNYTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS 84	KLLLKA 900  QYQVSN 960           QYQVSN 960  LRKAPV 102	961 LGGRSLPISLVFLVPVRLNGTVIMDRPQVTFSENLSSTCHTKERLFSHSDFLAELRKAPV 102 1021 VNCSIAVCQRIQCDIPFFGIQEERNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF 108	1081 TLPEGGAFVESQT 1081 TLPEGGFVESQT 1141 MMSEGGPPGAEPQ	RESULT 3 US-09-891;943-3 ; Sequence 3, Application US/08891943 ; Publication No. US20030077278A1	; GENERAL INFORMATION; ; APPLICANT: Gallatin, Michael   W. ; APPLICANT: Gallatin, Michael   W. ; TITLE OF INVENTION: No. US20030077278Alel Human 2 ; FILE REFERENCE: 27866/35004 ; CURRENT APPLICATION NUMBER: US/09/891 943	; CURRENT FILING DATE: 2001-06-26 ; PRIOR APPLICATION NUMBER: 09/193,043 ; PRIOR FILING DATE: 1998-11-16 ; PRIOR APPLICATION NUMBER: 08/286,889 ; PRIOR FILING DATE: 1904-08-06	FAILOR FILING DATE: 1594-02  FRIOR FILING DATE: 1994-12-21  FRIOR APPLICATION NUMBER: 08/943,363 FRIOR FILING DATE: 1997-10-03	NUMBEI SOFTWI SEQ ID LENG' TYPE	US-09-891-943-3  Query Match Best Local Similarity 100.0%; Pred. No. 0;  Matches 1153; Conservative  0; Mismatches 0; Indels 0; Gaps 0;

ò 유

```
1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1140
                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GSLYQCDYSTGSCEPIRLQVPVEAVMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK 120
                                                                                                                                                                                                                              840
                                             99
                                                                          99
                                                                                                      720
                                                                                                                                    720
                                                                                                                                                                  780
                                                                                                                                                                                                780
                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   901 NVTSENNMPRTUKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV
                                                                                                                                                                                                                                                                                                                                                                                                                               961 LGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1021 VNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1021 VNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIXTSHNHLLIVSTAEILFNDSVF
                                                                                                                        STRDRLREGGIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP
                                                                                                                                                                                                                                                                                         QRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA
                                                                                                                                                                                                                                                                                                                                                     901 NVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK
                                                               STRDRLREGGIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP
                                                                                                                                                                    NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                                                                                                             LSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Ledbetter, Jeffrey A. APPLICANT: Ledbetter, Jeffrey A. APPLICANT: Hayden-Ledbetter, Martha S. TITLE OF INVENTION: BINDING DOMAIN-IMMUNGLOBULIN FUSION PROTEINS FILE REFERENCE: 390.69-401C1 CURRENT APPLICATION NUMBER: US/10/207,655 CURRENT FILING DATE: 2002-07-25 NUMBER OF SEQ ID NOS: 426 SOFTWARE: Patentin version 3.0 SEQ ID NO 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 5956;
100.0%; Pred. No. 0;
Live 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; Sequence 176, Application US/10207655; Publication No. US20030118592A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity 100.
Matches 1153; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 5
US-10-207-655-176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-207-655-176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 1153
                                                                                                                                                                                                                                                                                                                                                                                                                 961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                               601
                                                                           601
                                                                                                         199
                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                       661
                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                            윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                  엺
                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                          ઠે
                                                                       9
                                                                                                        ઠે
                                                                                                                                 셤
                                                                                                                                                                  ઠે
                                                                                                                                                                                             셤
                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                             જે
 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KKSKTLFSLMOYSEEFRIHFTFKEFONNPNPRSLVKPITOLLGRTHTATGIRKVVRELFN 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541 IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NTIASKPPRDHVFQVNNPEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361 SNGPLISTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDWNDAYLGYAAAIILRNRVQSLV 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HYYEQTRGGOVSVCPLPRGORARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LGAPRYOHIGLVAMFRONTGMWESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAP 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MALRVLLITALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MALRVLLITALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                               Sequence 30, Application US/10144259

COBREAL INFORMATION:
APPLICANT: Arnaout, M. Amin
APPLICANT: Li, Rui
APPLICANT: Li, Rui
APPLICANT: Li, Rui
APPLICANT: Li, Rui
APPLICANT: Li, Rui
APPLICANT: Li, Rui
APPLICANT: Li, Rui
APPLICANT: Li, Rui
APPLICANT: Li, Rui
APPLICANT: Li, Rui
APPLICANT: Li, Rui
APPLICANT: Li, Rui
APPLICANT: Li, Rui
APPLICANT: NUMBER: US/10/144,259
CURRENT FILING DATE: 200-09-04
PRIOR APPLICATION NUMBER: US/60/221,950
PRIOR APPLICATION NUMBER: US/60/221,950
PRIOR APPLICATION NUMBER: US/60/221,950
PRIOR APPLICATION NUMBER: US/60/221,950
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 30
LENGTH: 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 15; Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IndelB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1153; Conservative 0; Mismatches
                                                                MMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
ORGANISM: Homo sapiens
US-10-144-259-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                  1081
                                                1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

ò g ö

13   GLEPEGNOSEERIAGOPOREDIALATER POLIALATER POLIALACEP POLIALACE POLIALACE AND SERVICES AND S	•	
GLCFLFGBNLEOOPOGGFPEALAGCPOBEDIAFILIDGSGSIIPHIDFRRMEEYSTWREOGCFFFGBNLEOOPOGGFPEALAGCPOBEDSDIAFILIDGSGSIIPHIDFRRMEEYSTWREOGCFFFGBNLEOOPOGGFPEALAGCPGBBDAFLIDGSGSIIPHIDFRRMEEYSTWREOGCFFFGBNLEOOPOGGFPEALAGCPGBBDAFLIDGSGSIIPHIDFRRMEEYSTWREOFTHINGSTRUCKTURTHETHINGSTRUCKTURTHOGGFPEALAGCPGBBDAFLIDGSGSIIPHIDFRRMEEYSTWREOFTHINGSTRUCKTURTHOGGFPEALAGCPGBBDAFLIDGSGSIIPHIDFRRMEEYSTWREOFTHINGSTRUCKTURTHOGGFPEALAGCPGBBDAFLIDGSGSIIPHIDFRRMEEYSTWREOFTHINGSTRUCKTURTHOGGFPEALAGCPGBBCFSANITHINGSTRUCKTURTHOGGFPEALAGCPGBCFFGBLCGSGSSSFFEHRWGGFSGFFSANITHINGSTRUCKTURTHOGGFPEALAGCPGBCFFGBLCGSGSSFFEHRWGGFSGFFSANITHINGSTRUCKTURTHOGGFPEALAGCFFGBLCGSGSSFFEHRWGGFSANITHINGSTRUCKTURTHOGGFPEACAGCTGSGSSFFEHRWGGFSANITHINGSTRUCKTURTHOGGFPEACAGCTGSGSSFFEHRWGGFSANITHINGSTRUCKTURTHOGGFPEACAGCTGSGSSFFEHRWGGFSANITHINGSTRUCKTURTHOGGFPEACAGCTGSGSSFFEHRWGGFSANITHINGSTRUCKTURTHOGGFPEACAGCTGSGSSFFEHRWGGFSANITHINGSTRUCKTURTHOGGFPEACAGCTGSGSSFFEHRWGGFSANITHINGSTRUCKTURTHOGGFPEACAGCTGSGSSFFEHRWGGFSANITHINGSTRUCKTURTHOGGFPEACAGCTGSGSSFFEHRWGGFSANITHINGSTRUCKTURTHOGGFPEACAGCTGSGSTFENGTANITHINGSTRUCKTURTHOGGFPEACAGCTGSGSTFENGTANITHINGSTRUCKTURTHOGGFPEACAGCTGSGSTFENGTANITHINGSTRUCKTURTHOGGFPEACAGCTGSGSTFENGTANITHINGSTRUCKTURTHOGGFPEACAGCTGSGSTFENGTANITHINGSTRUCKTURTHOGGFPEACAGCTGSGSTFENGTANITHINGSTRUCKTURTHOGGFPEACAGCTGSGSTFENGTANITHINGSTRUCKTURTHOGGFPEACAGCTGSGSTFENGTANITHINGSTRUCKTURTHOGGFPEACAGCTGSGSTFENGTANITHINGSTRUCKTURTHOGGFPEACAGCTGSGTFFANITHINGSTRUCKTURTHOGGFPEACAGCTGSGTFFANITHINGSTRUCKTURTHOGGFPEACAGCTGSGTFFANITHINGSTRUCKTURTHOGGFPEACAGCTGSGTFFANITHINGSTRUCKTURTHOGGFPEACAGCTGSGTFFANITHINGSTRUCKTURTHOGGFPEACAGCTGSGTFFANITHINGSTRUCKTURTHOGGFPEACAGCTGSGTFANITHINGSTRUCKTURTHOGGFPEACACCTGTTANITHINGSTRUCKTURTHOGGFPEACAGCTGSGTFANITHINGSTRUCKTURTHOGGFPEACACCTGTTANITHINGSTRUCKTURTHOGGFPEACACCTGTTANITHINGSTRUCKTURTHOGGFPEACACCTGTTANITHINGSTRUCKTURTHOGGFPEACACCTGTTANITHINGSTRUCKTURTHOGGFPEACACCTGTTANITHINGSTRUCKTURTHOGGFPEACACCTGTTANITHINGSTRUCKTURTHOGGFPEACACCTGTTANITHINGSTRUCKTURTHOGGFPEACACCTGTTANITHINGSTRUCKTURTHOGGFPEACACCTGTTANITHINGSTRUCKTURTHOGGFPEACACCTGTTA	v	GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK 1
KKSKTLFSIMOVSEEFRIHFTRKEFONNEMBRSLWFDTOLLGRTHTATGIRKVYRELEN KKSKTLFSIMOVSEEFRIHFTRKEFONNEMBRSLWFDTOLLGRTHTATGIRKVYRELEN TINGARKNAFKILLVYITTOGERFGDELZEDLIFEGTOTGSSSSFEHBAGGESAALT STANDALSTYGSTDAAGGYFLYTSKEKSTFINNTRYDSDAMDALGTAAALILLRRYOSLU NTLASTYGSTDAAGGYFLYTSKEKSTFINNTRYDSDAMDALGTAAALILLRRYOSLU ANDELLSTYGSYDAAGGYFLYTSKEKSTFINNTRYDSDAMDALGTAAALILLRRYOSLU LGAPERDHYFONNRFEALKITONGLEKKFALEGTOTGSSSSFEHBAGGESAALT SNOPLLSTYGSYDAAGGYFLYTSKEKSTFINNTRYDSDAMDALGTAAALILLRRYOSLU LGAPCHIGLAAFRONTGAMSSNANYGTOLGAYGASLGSYDDANGSRSTDLJIGAF HYPEOTRGGOVSVCPLRFGORARMCDANLYGSGOOPWGRFGAALTVLGDANGSKLTDVA HYPEOTRGGOVSVCPLRFGORARMCDANLYGSGOOPWGRFGAALTVLGDANGSKLTDVA HYPEOTRGGOVSVCPLRFGORARMCDANLYGSGOOPWGRFGAALTVLGDANGSKLTDVA HYPEOTRGGOVSVCPLRFGORARMCDANLYGSGOOPWGRFGAALTVLGDANGSKLTDVA HYPEOTRGGOVSVCPLRFGORARMCDANLYGSGOOPWGRFGAALTVLGDANGSKLTDVA HYPEOTRGGOVSVCPLRFGORARMCDANLYGSGOOPWGRFGAALTVLGDANGSKLTDVA HYPEOTRGGOVSVCPLRFGORARMCDANLYGSGOOPWGRFGAALTVLGDANGSKLTDVA HYPEOTRGGOVSVCPLRFGORARMCDANLYGSGOOPWGRFGAALTVLGDANGSKLTDVA HYPEOTRGGOVSVCPLRFGORARMCDANLYGSGOOPWGRFGAALTVLGDANGSKLTDVA HYPEOTRGGOVSVCPLRFGORARMCDANLYGSGOOPWGRFGAALTVLGDANGSKLTDVA HYPEOTRGGOVSVCPLRFGORARMCDANLYGSGOOPWGRFGAALTVLGDANGSKLTDVA HYPEOTRGGOVSVCPLRFGORARMCDANLYGSGOOPWGRFGAALTVLGDANGSKLTDVA HYPEOTRGGOVSVCPLRFGORARMCDANLYGSGOOPWGRFGAALTVLGDANGSKLTDVA HYPEOTRGGOVSVCPLRFGORARMCDANLYGSGOOPWGRFGAALTVLGDANGSKLTDVA HYPEOTRGGOVSVCPLRFGOORARMCDANLYGSGOOPWGRFGAALTVLGDANGSKLTDVA HYPEOTRGGOVSVCPLRFGOORARMCDANLYGSGOOPWGRFGAALTVLGOVGSLGOODLYNOGL HITTOLLAAFGSCOOPWGRFGAALACSGOOPWGRFGAALGOVGKAAGGARGACCANOGL HITTOLLAAFGSCOOPWGRFGAALACSGOOPWGRFGAALACACACACACACACACACACACACACACACACACAC		GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRNKEFVSTVMEQL
ITHORAKKAR FKILUVITIOGEKGOPLGVEDUY PEADREGVIRVIGVGDAFKSEKSROEL  ITHORAKKAR FKILUVITIOGEKGOPLGVEDUY PEADREGVIRVIGVGDAFKSEKSROEL  ITHORAKRAPKILUVITIOGEKGOPLGVEDUY PEADREGVIRVIGVGDAFKSEKSROEL  ITHORAKRAPKILUVITIOGEKGOPLEKT FALEGTGGSSSFEHBMSGBGFSAAIT  MYTASKPPEDHYFOVNNFEALKTIGNOLDEKT FALEGTGGSSSFEHBMSGBGFSAAIT  MYTASKPPEDHYFOVNNFEALKTIGNOLDEKT FALEGTGGSSSFEHBMSGBGFSAAIT  SNOPLLSTVGSYDAAGGYPLYTSKEKSTFINMTRVDSDMIDALIGAAAITLIRNEVOSLY  LIGHTHII HILLING HILLI		KKSKTLFSLMQYSEEFRIHPTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN 
NTIASKEPRDHVEOVNNFEALKTIONOLEEKIFAIEGTOTGSSSSFEHEMSGEGFSAAIT	2 2	ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL 
SNGPLLSTVGSYDWAGGVELYTSKEKSTFINMTRVDSDWNDAYLGYAAAIILRARRVOSLY LGAPRYQHIGLVAMFRQNTGWESNANWGTOIGAYFGASLCSVDVDSNGSTDLYLIGAP LGAPRYQHIGLVAMFRQNTGWESNANWGTOIGAYFGASLCSVDVDSNGSTDLYLIGAP LGAPRYQHIGLVAMFRQNTGWESNANWGTOIGAYFGASLCSVDVDSNGSTDLYLIGAP LGAPRYQHIGLVAMFRQNTGWESNANWGTOIGAYFGASLCSVDVDSNGSTDLYLIGAP HYYEOTRGGGVSVCPLPRGQRARWQCDAVLYGEQGOPWGRFGAALTVLGDVNGDKLTDVA HYYEOTRGGGVSVCPLPRGGRARWQCDAVLYGEQGOPWGRFGAALTVLGDVNGDKLTDVA HYYEOTRGGGVSVCPLPRGGRARWQCDAVLYGEQGOPWGRFGAALTVLGDVNGDKLTDVA HYYEOTRGGGVSVCPLPRGGRARWQCDAVLYGEQGOPWGRFGAALTVLGAVGDVGCATDVA HYYEOTRGGGVSVCPLPRGGRARWQCDAVLYGEQGOPWGRFGAALTVLGAVGGACTLTDVA HYYEOTRGGGVSVCPLPRGGRARWQCDAVLYGEGGOPWGRFGAALTVLGAVGGACTLTDVA HYYEOTRGGGVSVCPLPRGGRARWQCDAVLYGEGGOPWGRFGAALTVLGAVGGACTLTDVA HYYEOTRGGGVSVCPLPRGGRARWQCDAVLYGEGGOPWGRFGAALTVLGAVGGACTLTDVA HYYEOTRGGGVSVCPLPRGGRARWQCDAVLYGEGGOPWGRFGAALTVLGAVGGACTLTDVA HYYEOTRGGGOVSVCPLPRGGRARWQCDAVLYGEGGOPWGRFGAALTVLGAVGGACTLTDVA HYYEOTRGGGOVSVCPLPRGGRARWQCDAVLYGEGGOPWGRFGAALTVLGAVGGACTLTCACLA GAPGEEDNRGAVYTPLALBSGGPHSRAVPRETKASTRROTOVLGITGTCFTLKLQLP STRRRLEGGOJGSVVTYDLALBSGRPHSRAVPRETKASTRROTOVLGITGTCFTLKLQLP STRRRLEGGOJGSVVTYDLALBSGRPHSRAVPRETKASTRROTOVLGITGTCFTLKLQLP STRRRLEGGOJGSVVTYDLALBSGRPHSRAVPRETKASTRROTOVLGITGTCFTLKLQLP STRRRLEGGOJGSVVTYDLALBSGRPHSRAVPRETKSTRROTOVTGFTLKCQLP STRRRLEGGOJGSVVTYDLALBSGRPHSRAVPRETKSTRROTOVTGFTLKCQLP STRRRLEGGOJGSVVTYDLALBSGRPHSRAVPRETKSTRROTOVTGFTLKCQLP STRRRLEGGOJGSVTYDLALBSGRPHSRAVPRETKSTRROTOVTGFTLKCQLP GAGGGRAFALACESASSTTEVGGALKSTSCSINHPIPPENSEVTHTFDVDSKASLGNKLLLKA ORSKRLACESASSTTEVGGALKSTSCSINHPIPPENSEVTHTFDVDSKASLGNKLLLKA ORSKRLACESASSTTEVGGALKSTSCSINHPIPPENSEVTHTFDVDSKASLGNKLLLKA ORSKRLACESASSTTEVGGALKSTSCSINHPIPPENSEVTHTTFDVDSKASLGNKLLLKA ORSKRLACESASSTTEVGGALKSTSCSINHPIPPENSEVTHTTFDVDSKASLGNKLLLKA ORSKRLACESASSTTEVGGALCTTAKGTSCNANWATTASHILLITPAALYLGFFRROYT HILLIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	36	NTIASKPPRDHVPQVNNPEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT
LGAPRYOHIGLVAMPERNATORIGANFGALGAPGASLCSVDVDSNGSTDLVLIGAP HYPECTRGGOVSVCPLPRGQARAWOCDAVLYGOGOPWGRFGAALTVLGDVNDDKLTDVA HYPECTRGGOVSVCPLPRGQARAWOCDAVLYGOGOPWGRFGAALTVLGDVNDDKLTDVA HYPECTRGGOVSVCPLPRGQARAWOCDAVLYGOGOPWGRFGAALTVLGDVNDDKLTDVA HYPECTRGGOVSVCPLPRGQARAWOCDAVLYGOGOPWGRFGAALTVLGDVNDDKLTDVA HYPECTRGGOVSVCPLPRGQARAWOCDAVLYGOGOPWGRFGAALTVLGDVNDDKLTDVA HYPECTRGGOVSVCPLPRGQRARWOCDAVLYGOGOPWGRFGAALTVLGDVNDDKLTDVA HYPECTRGGOVSVCPLPRGGARAWOCDAVLYGOGOPWGRFGAALTVLGDVNDDKLTDVA HYPECTRGGOVSVCPLPRGGRARWOCDAVLYGOGOPWGRFGAALTVLGDVNDCLV HIT	96 96	SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV 
HYYEOTRGGOVSVCPLERGORARMOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVA HYYEOTRGGOVSVCPLERGORARMOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVA HYYEOTRGGOVSVCPLERGORARMOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVA HYYEOTRGGOVSVCPLERGORARMOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVA HYYEOTRGGOVSVCPLERGORARMOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVA HYYEOTRGGOVSVCPLENGGSGISPSHSORTAGSKLSPRLOYFCGSLSGGODLTWDGLV HYYEOTRGGOSTSCAGGISPSHSORTAGSKLSPRLOYFCGSLSGGODLTWDGLV HYYEOTRGGOSTSCAGGISPSHSORTAGSKLSPRLOYFCGSLSGGODLTWDGLV HYYEOTRGGOSTSCAGGISPSHSORTAGSKLSPRLOYFCGSLSGGODLTWDGLV HYYEOTRGGOSTSCAGGISPSHSORTAGSKLSPRLOYFCGSSLSGGODLTWDGLY HYYEOTRGGOSTSCAGGISPSHSORTAGSKLSPRLOYFCGSSLSGGODLTWDGLY HYYEOTRGGOSTSCAGGISPSHSORTAGSKLSPRLOYFCGSSLSGGODLTWDGLY HYYEOTRGGOSTSCAGGISPSHSORTAGSKLSPRLOYFCGSSLSGGODLTWDGLY HYYEOTRGGOSTACTAGGISPSHSORTAGSKLSTROTOVLGTTCGTTLKLOLP STRDRLARGOJOSVVTYDLALDSGRPHSRAVNFECNDOVKGKGRAGEVRUCHVOK STRRLACGOJOSVVTYDLALDSGRPHSRAVNFRETANSTRROTOVLGTOCTTLKLOLP HIT HIT HIT HIT HIT HIT HIT HIT HIT HIT	4 4	LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP 48
IGAPGEEDRRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGGSLSGGODLTMDGLV IGAPGEEDRRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGGSLSGGODLTMDGLV IGAPGEEDRRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGGSLSGGODLTMDGLV DLTVGAQGHVLLLRSQPVLRVKAIMEFPREVARNFECNDQVVKGKEAGEVRVCLHVQK DLTVGAQGHVLLLRSQPVLRVKAIMEFPREVARNFECNDQVVKGKEAGEVRVCLHVQK STRDRLREGGIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	4 4 8 8	HYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA 
DLTVGAQGHVLLLRSQPYLRVKAIMEFRPREVARNVFECNDQVVKGKEAGEVRVCLHVQK DLTVGAQGHVLLLRSQPYLRVKAIMEFRPREVARNVFECNDQVVKGKEAGEVRVCLHVQK STRDRLREGQIOSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP STRDRLREGQIOSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP NCIEDPVSPIULRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEGACGNNICQDD NCIEDPVSPIULRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEGACGNNICQDD STRDRLAGGOIOSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP NCIEDPVSPIULRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEGACGNNICQDD STRDRLAGGOIOSVVTYDTRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS STRDRACGSASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA NVTSENNMPRTNKTEFQLELPVKXAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN NVTSENNMPRTNKTEFQLELPVKXAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN NVTSENNMPRTNKTEFQLELPVKXAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN LGGRSLPISLVFLVPVRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV LGGRSLPISLVFLVPVRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV LGGRSLPISLVFLVPVRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELLRKAPV LGGRSLPISLVFLVPVRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELLRKAPV NNCSIAVCQRIQCDIPPFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF TLLPGGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD MMSEGGPPGAEPQ LICHPLINGT STROPPERFUNDLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD NNCSIAVCRIQCDIPPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF TLLPGGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD MMSEGGPPGAEPQ LICHPLINGT STROPPERFUNDLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD LICHPLINGT STROPPERFUNDLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD LLLPGGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD LLLPGGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD LLLPGGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD LLLPGGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALTYALGFFKRQYKD LLLPGGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALTYALGFFKRQYKD LLLPGGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALTYALGFFKRQYKD LLLPGGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALTYALGFFKRQYKD LLLPGGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALTYALGFFKRQYKD LLLPGGGAFVRSQTETKVFFTRINGSVGGLLLLALITAALTYALGFFKRQYKD LLLPGGAFVRSQTETKVFTRAUTHTT	5	IGAPGEEDNRGAVYLFHÜTSGSGISPSHSORIAGSKLSPRLOYFGQSLSGGODLTMDGLV 
STRDRLREGOI OSVUTYDLALDSGRPHSRAVFNETKNSTRROTOVLGLTOTCETLKLOLD STRDRLREGOI OSVUTYDLALDSGRPHSRAVFNETKNSTRROTOVLGLTOTCETLKLOLD STRDRLREGOI OSVUTYDLALDSGRPHSRAVFNETKNSTRROTOVLGLTOTCETLKLOLD NCIEDPUSPI VLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNI CQDD	9	DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK 
NCIEDBVSPIVLRINFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFERNCGNDNICQDD NCIEDBVSPIVLRINFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFERNCGNDNICQDD LSITFSFMSLDCLVVGGREFNVTVTVRNDGEDSYRTQVTFFPLDLSYRKVSTLQNQRS LSITFSFMSLDCLVVGGREFNVTVTVRNDGEDSYRTQVTFFFLDLSYRKVSTLQNQRS NSMRLACESASSTEVGGLRFSTSCSINHPIFPENSEVTFNITFPPLDLSYRKVSTLQNQRS ORSWRLACESASSTEVGGLRFSTSCSINHPIFPENSEVTFNITFPPLDLSYRKVSTLQNQRS ORSWRLACESASSTEVGGLRFSTSCSINHPIFPENSEVTFNITFPPUDSKASLGNKLLLKA ORSWRLACESASSTEVGGLRFSTSCSINHPIFPENSEVTFNITFPPUDSKASLGNKLLLKA ORSWRLACESASSTEVGGLRFXTAVVRNVTSHGVSTKYLNFTASENTSRVMQHQYQVSN NVTSENNMPRTNKTEFQLELPVKYAVVMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN NVTSENNMPRTNKTEFQLELPVKYAVVMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN LGGRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV NVTSENNMPRTNKTEFQLEELPVKXAVVMVTSHGVSTKYLNFTASENTSRVMQHQYQVSN LGGRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV NVCSIAVCQRLQDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAELLFNDSVF TLLPGGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD TLLPGGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD HILLPHIJH HILL HILL HILL HILL HILL HILL HALYKLGFFKRQYKD HILLPHIJH HILL HILL HILL HILL HALYKLGFFKRQYKD HILLPHIJH HILL HILL HILL HALYKLGFFKRQYKD HILLPHIJH HILL HALYKLGFFKRQYKD HILLPHIJH HILL HALYKLGFFKRQYKD HILLPHIJH HILL HALYKLGFFKRQYKD HILLPHIJH HILL HALYKLGFFKRQYKD HILLPHIJH HILL HALYKLGFFKRQYKD HILLPHIJH HILL HALYKLGFFKRQYKD HILLPHIJH HILL HALYKLGFFKRQYKD HILLPHIJH HILL HALYKLGFFKRQYKD HILLPHIJH HILL HALYKLGFFKRQYKD HILLPHIJH HILL HALYKLGFFKRQYKD HILLPHIJH HILL HALYKLGFFKRQYKD HILLPHIJH HILL HALYKLGFFKRQYKD HILLPHIJH HILL HALYKLGFFKRQYKD HILLPHIJH HILL HALYKLGFFKRQYKD HILLPHIJH HILL HALYKLGFFKRQYKD HILLPHIJH HILL HALYKLGFFKRQYKD HILLPHIJH HILL HALYKLGFFKRQYKD HILLPHIJH HILL HALYKLGFFKRQYKD HILL HILL HILL HILL HALYKLGFFKRQYKD HILL HILL HILL HILL HILL HILL HILL HILL	99 9	STRDRLREGGIGSVVIYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP 
LSITES FMS.LDCLUVGG REFINITUTINDGEDS YRTQUTFFFPLDLS YRKVSTLQNQRS LSITES FMS.LDCLUVGG REFINITUTINDGEDS YRTQUTFFFPLDLS YRKVSTLQNQRS LSITES FMS.LDCLUVGG REFINITUTINTUTINDGEDS YRTQUTFFFPLDLS YRKVSTLQNQRS GRSWRLACESAS STEVSGALKSTSCSINHPIFPENSEVTFNITPDVDSKASLGNKLLLKA ROYSENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN NUTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN LGGRSLPISLVPLVPVRLDYPWBRQVTFSENLSSTCHTKBRLPSHSDFLAELRKAPV LGGRSLPISLVPLVPVRLDYPWBRQVTFSENLSSTCHTKBRLPSHSDFLAELRKAPV NCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF TLLPQGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD HILLININININININININININININININININININ	72	NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNGGNDNICQDD 78
ORSWRLACESASSTEVSGALKSTSCSINHPIPPENSEVTENITPDVDSKASLGNKLLLKA  ORSWRLACESASSTEVSGALKSTSCSINHPIPPENSEVTENITPDVDSKASLGNKLLLKA  ONTSENNMPRINKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN  NVTSENNMPRINKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN  LIGGRSLPISLVFLVPVRLNOTVIWDRPQVTFSENLSSTCHTKRRLPSHSDFLAELRKAPV  LIGGRSLPISLVFLVPVRLNOTVIWDRPQVTFSENLSSTCHTKRRLPSHSDFLAELRKAPV  LIGGRSLPISLVFLVPVRLNOTVIWDRPQVTFSENLSSTCHTKRRLPSHSDFLAELRKAPV  NCSIAVCQRIQCDIPPFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF  TLLPQQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD  MMSEGGPPGAEPQ  M	78	LSITESFMSLDCLVVGGREFNVTVTVRNDGEDSYRTQVTFFFFLDLSYRKVSTLQNQRS 84
NUTSENNMPRINKTEPOLELPVKYAVYMVYTSHGVSTKYLNFTASENTSRVMOHOYOVSN NYTSENNMPRINKTEPOLELPVKXAVYMVYTSHGVSTKYLNFTASENTSRVMOHOYOVSN LGORSLPISLVFLVPVRLNOTVIWDRPOVTFSENLSSTCHTKERLPSHSDFLAELRKAPV LGIRLLIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	8 8	ORSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA
IGORSLPISLVFLVPVRLNOTVIWDRPOVTFSENLSSTCHTKERLPSHSDFLAELRKAPV	06 6	NUTSENNMPRINKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN 
VNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF	96	LGORSLPISLVFLVPVRLNOTVIMDRPOVTFSENLSSTCHTKERLPSHSDFLAELRKAPV
TLLPGGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD 114	102	VNCSIAVCQRIQCDIPPFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF 
MMSEGGPPGAEPQ 11	108	TLIPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD 114
	114	MMSEGGPPGAEPQ 11

```
540
                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              629
                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                            9
                          APPLICANT: Springer, Timothy A.
APPLICANT: Springer, Timothy A.
APPLICANT: Springer, Motomu
APPLICANT: Springer, Motomu
APPLICANT: Springer, Motomu
APPLICANT: Liu, Chafen
TITLE OF INVENTION: MODIFIED POLYPEPTIDES STABILIZED IN A
TITLE OF INVENTION: DESTRED CONFORMATION AND METHODS FOR PRODUCING SAME
FILE REFERENCE: CBN-002CP
CURRENT FILING NUMBER: US/09/945,265
CURRENT FILING DATE: 2001-08-101
PRIOR APPLICATION NUMBER: US 60/229,700
PRIOR APPLICATION NUMBER: US 60/229,700
PRIOR SEQ ID NOS: 4
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                                                                                                                                                                                                                                                                                      121 GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HYYBOTRGGOVSVCPLPRGQRARWQCDAVLYGBQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IGAPGEEDNRGAVYLFHGTSGSGISPSHSORIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                                                                                                                                                                                                      1 MALRVILLTALTLCHGFNLDTENAMTFOENARGFGGSVVOLOGSRVVVGAPOEIVAANOR
                                                                                                                                                                                                                                                                                                                                                                                                          121 GLCFLFGSNLRQOPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                            Length 1152;
                                                                                                                                                                                                                                                                                    ä
                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                            DB 10;
                                                                                                                                                                                                                                                         99.7%; Score 5940.5;
99.9%; Pred. No. 0;
ive 0; Mismatches
Sequence 4, Application US/09945265
Patent No. US20020123614A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 99.9
Matches 1152; Conservative
                                                                                                                                                                                                                      , ORGANISM: Homo sapiens
US-09-945-265-4
                                                                                                                                                                                               LENGTH: 1152
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           원
                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       કે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                            ठ
```

Oy 137 FPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRWKEFVSTVMEOLKKSKTLFSLMOYSEEF 196 121 FPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRWKEFVSTVMEOLKKSKTLFSLMOYSEEF 196 121 FPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRWKEFVSTVMEOLKKSKTLFSLMOYSEEF 180	197 RIHFTFKEFQNNPNPRSLVKFITOLLGRTHTATGIRKVVRELFNITNGARKNAFKILVVI 25 	257 TDGEKEGDPLGYEDVI PEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 31	317 NFEALKTIONOLREKIFALEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 37	377 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVOSLVLGAPRYOHIGLVAMFR 43 	437 ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYRQTRGGQVSVCPL 49	497 PRGQRAR         481 PRGQRAR	Qy 557 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 616	Qy 617 PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT 676	OY 677 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF 736	Qy 737 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFWSLDCLVVG 796	QY 797 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV 856	QY 857 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMFRTNKTEF 916	QY         917 QLELEVKYAVYTSHGVSTKYLNFTASENTSRVMQHQYOVSNLGQRSLPISLVFLVPV 976           DD         901 QLELEVKYAVYMVYTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960	Qy 977 RLNOTVIMDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1036	Qy 1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSOTET 1096	Qy         1097         KVEPPEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ         1153	RESULT 8 US-09-902-481A-5 ; Sequence 5, Application US/09902481A
Oy 661 STRDRLREGOIOSVVIYDLALDSGRPHSRAVFNETKNSTRROTQVLGLTQTCETLKLQLP 720 	Oy 721 NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD 780	Qy 781 LSITESEMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFPLDLSYRKVSTLQNQRS 840 	Qy 841 ORSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA 900	Qy 901 NVTSENNMERTNKTEFQLELPVKYAVYMVYTSHGVSTKYLNFTASENTSRVMQHQYQVSN 960 	Qy 961 LGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV 1020 	108	Qy 1081 TLLPGQGAFVRSQTETKVEPFEVENPLPLIVGSSVGGLLLALITAALYKLGFFRRQYKD 1140	Qy     1141 MMSEGGPFGAEPQ 1153       Db     1140 MMSEGGPPGAEPQ 1152	RESULT 7 US-09-902-481A-6 ; Sequence 6, Application US/09902481A	; Publication No. US2003005440A1 ; GENERAL INFORMATION: ; APPLICANT: Springer, Timothy ; APPLICANT: Shimaoka, Motomu	APPLICANT: Shifman, Julia APPLICANT: Mayo, Scephen TITLE OF INVENTION: NOVEL PROTEINS WITH INTEGRIN-LIKE ACTIVITY FILE REFERENCE: A-70586-1/RFIT/RMS/RMK	CURRENT APPLICATION NUMBER: US/09/902,481A CURRENT FILING DATE: 2001-07-09 PRIOR APPLICATION NUMBER: US 60/216,600 PRIOR FILING DATE: 2000-07-07	NUMBER OF SEQ ID NOS: 7 SOFTWARE: PatentIn version 3.1 SEQ ID NO 6 LENGTH: 1137	,	DB 11; Length 1137;		77 RLOVPVEAVNMSLGLSLAATTSPPOLLACGPTVHQTCSENTYVKGLCFLFGSNLRQOPQK 1

780 856 840 916 900

```
RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1036
                                                                                                                                                                                                                                                                                                                                                                                        PFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1096
                                                                                                                                                                                                                                                                                                                                                                                                             1021 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLFGGGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RIHFTEKEFONNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILVVI 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                            77 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     137 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                 GPREFNYTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLP1SLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GPREFNVTVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                     SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEP
                                                                                                                                                                                        SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                         QLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 4 Application US/09902481A

Publication No. US20030054440A1

GENERAL INFORMATION:

APPLICANT: Springer, Timothy

APPLICANT: Shifman, Julia

APPLICANT: Shifman, Julia

APPLICANT: Shifman, Julia

APPLICANT: Shifman, Julia

APPLICANT: MAYO, Stephen

TILE REFERENCE A-70586-1/RFT/RMS/RMK

CURRENT FPLICATION NUMBER: US/09/902,481A

CURRENT FPLICATION NUMBER: US 60/216,600

PRIOR APPLICATION NUMBER: US 60/216,600

PRIOR PILING DATE: 2000-07-07

NUMBER OF SEQ ID NOS: 7

SOFTWARE: Patentin version 3.1

SEQ ID NO 4

LENTH: 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1137;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 98.3%; Score 5852; DB 11; Best Local Similarity 99.2%; Pred. No. 0; Matches 1128; Conservative 7; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTHER INFORMATION: Synthetic US-09-902-481A-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-902-481A-4
                                                                                                                                                                                                                                                                                                                                                                                        1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            197
                                                          721
                                                                                                797
                                                                                                                                  781
                                                                                                                                                                   857
                                                                                                                                                                                                       841
                                                                                                                                                                                                                                           917
                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                               776
                                                                                                                                                                                                                                                                                                                                                     196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE
                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                    임
                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                    셤
                                                                                              ò
                                                                                                                          g
                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 RLQVPVEAVNMSLGLSLAAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVWEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNIVASKPFRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NFEALKTIONOLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361 GVFLYTSKEKSTFINMTRYDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HGTSGSGISPSHSQRIAG$KLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNC1EDPVSP1VLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 FNLDTENAMTFQENARGFGGSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKLILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QNTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RIHFTFKEFONNPNPRSLVKPITOLLGRTHTATGIRKVVRELFNITNGARKNAFKILVVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17 FNLDTENAMTFQENARGRGOSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Springer, Timothy
APPLICANT: Shifman, Julia
APPLICANT: Shifman, Julia
APPLICANT: Mayo, Srephen
ITILE OF INVENTION: NOVEL PROTEINS WITH INTEGRIN-LIKE ACTIVITY
FILE REFERENCE: A-70586-1/RFT/RMS/RMK
CURRENT FILING DATE: 2001-07-09
FRIOR FILING DATE: 2000-07-07
NUMBER OF SEQ ID NOS: 7
SOFTWARE: Patentin version 3 1
SEQ ID NO 5
LENGTH: 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                           DB 11; Length 1137;
                                                                                                                                                                                                                                                                                                                                                                                                                                           1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                       Score 5862; DB Pred. No. 0; 7; Mismatches
                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Artificial seguence
                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 99.3%;
Matches 1129; Conservative
                                                                                                                                                                                                                                                                                                                                                     , OTHER INFORMATION: syntheti
US-09-902-481A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

ö

Gaps

16 9

120 136

ö

ö

16 9 180

256 240 316

196

136 120 300 376 360 436 420 496 480

```
PVLRVKAIMEPNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLKEGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241 TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                                                                                                               YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YDLALDSGRPHSRAVFNETRNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                     NFEALKTIONOLREKIFALEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                   HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                               RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHOTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                            RIGUPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                      TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ONTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                            RIHFTFKEFONNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILVVI
                                                                                                                                                                                          17 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                   Length 1137;
                                                                                                                                                    11;
                                                                                                                                                                      S.
                                                                                                                                                    80
                                                                                                                                                  Score 5839; DE
Pred. No. 0;
8; Mismatches
FILE REFERENCE: A-70586-1/RFT/Kms/ms...
CURRENT APPLICATION NUMBER: US/09/902,481A
CURRENT FILING DATE: 2001-07-09
PRIOR APPLICATION NUMBER: US 60/216,600
PRIOR FILING DATE: 2000-07-07
NUMBER OF SEQ ID NOS: 7
SOFTWARE: PatentIn version 3.1
SOFTWARE: PatentIn version 3.1
                                                                                                                                                   98.0%;
                                                                                                                      OTHER INFORMATION: synthetic
                                                                                                                                                                       Conservative
                                                                                                ORGANISM: Artificial FEATURE:
                                                                                                                                                             Similarity
                                                                                                                                                              Best Local Simi
Matches 1124;
                                                                                                                                US-09-902-481A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                              ч
                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                           317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 797
                                                                                                                                                                                                                                11
                                                                                                                                                                                                                                                                                                              197
                                                                                                                                                                                                                                                                                                                                                     257
                                                                                                                                                                                                                                                                                                                                                                                                                                  377
                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ብ ራ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                          임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                               용
                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                            ઠ
                                                                                                                                                                                                           g
                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                              ሯ
                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1080
                                                                                                                                                                                                                                                                                  099
                                                                                                                                                                                                                                                                                                                                                                                  856
                                                                                                                                                                                                                                                                                                     736
                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                            796
                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                          916
                                                                                                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                  556
                                                                                                                                                                                                    540
                                                                                                                                                                                                                        919
                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                              919
                                                                                                                                                                                                                                                                                                                                                               780
                                                                         436
                                                                                                                      420
                                                                                                                                          496
                                                                                                                                                             480
                        316
                                                             NFEALKTIONOLREKIFAIEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 376
     RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1021 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTABILLENDSVFTLLPGQGAFVRSQTET
                                                                                                                                         ONTGMMESNANVKGTQİGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                    HGTSGSGISPSHSQRIÄGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                         YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                             SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                      OLELPVXYAVYMVYTSHGVSTXYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                   GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                               GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                       TOGEKFGDPLGYEDVI PEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INTEGRIN-LIKE ACTIVITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 10
US-09-902-481A-3
US-09-902-481A-3
: Sequence 3, Application US/09902481A
; Bublication No. US20030054440A1
; GENERAL INFORMATION:
; APPLICANT: Springer, Timothy
; APPLICANT: Shimaoka, Motomu
; APPLICANT: Shimao, Julia
; APPLICANT: Mayo, Stephen
; TITLE OF INVENTION: NOVEL PROTEINS WITH INI
                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1097
                                           241
                                                                                                                                                                                   497
                                                                                                                                                                                                      481
                                                                                                                                                                                                                          557
                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                      677
                                                                                                                                                                                                                                                                                                                                              737
                                                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                                                                                    797
                                                                                                                                                                                                                                                                                                                                                                                                                           857
                                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                    377
                                                                                                                                                                                                                                                               617
                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                              317
                                                                                 301
                                                                                                                        361
                                                                                                                                           137
                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                  6 B
                                                                                                                                                         엄
                                                                                                                                                                           ે
                                                                                                                                                                                                  요
                                                                                                                                                                                                                  S S
                                                                                                                                                                                                                                                          8 6 8 6
                                                                                                                                                                                                                                                                                                                                        6 6 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                       g
                                                                           g
                                                                                               ે
                       ò
                                                             8
```

540

616 900 9/9 999 736 720 196 780 856

306 SKPSQEHIFKVEDFDALKDIQNQLKEKIFAIEGTETTSSSSFELEMAQEGFSAVFTPDGP 365	365 LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAP 424 :	425 RYQHIGLVAMFRQNTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE 484	485 QTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP 544	545 GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV 604	605 GAQGHVLLIRSQEVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRD 664	665 RLREGQIOSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIE 724   :	725 DPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSIT 784	785 FSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW 844	845 RLACESASTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTS 904	905 ENNWARTHKTEFOLELPVKXAVYMVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQ 963 	964 RSLPISLVPLVPVRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNC 1023 	1024 SIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLL 1083	1084 PGGGAFVRSGTETKVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFRRQYKDMMS 1143       -  -	1144 E 1144 	RESULT 12 US-09-350-259-4 ; Sequence 4, Application US/09350259 ; Patent No. US20020062008A1	LANDELICANT: Gallatin, Michael W. APPLICANT: Van der Vieren, Monica TITLE OF INVENTION: No. US20020062008A1el Human 2	; FILE REFERENCE: 27866/35004 ; CURRENT APPLICATION NUMBER: US/09/350,259 ; CURRENT FILING DATE: 1999-07-08 ; EARLIER APPLICATION NUMBER: 09/193,043 · FARITER FILING DATE: 1998-11-16	EARLIER APPLICATION NUMBER: 08/173,497
ą	<b>ራ</b> 8	දි දි	g S	è 8	දු පු	& B	& 8	දු පු	ර් සි	& a	<b>&amp;</b> 8	중 원	පි පි	8 8	RES.			· ·-
DD 781 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV 840	Qy 857 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF 916	Qy 917 QLELPVKYAVYMVYTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 976	Oy 977 RINOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1036	OY 1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSQTET 1096  1021 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSQTET 1080	Oy 1097 KVEPPEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKONMSEGGPPGAEPQ 1153	RESULT 11 US-10-116-275-204	SA1 Cal Tech	APPLICANT: O'MARONY, David APPLICANT: Brynch, David APPLICANT: Lambkin, Imelda	APPLICANI: HIGGINS, LISA ; TITLE OF INVENTION: Genetic Analysis of Peyer's Patches and M Cells and Methods and TITLE OF INVENTION: Compositions Targeting Peyer's Patches and M Cell Receptors ; FILE REFERENCE: E1067/20087	CURRENT FILING DATE: 2002-10-04  NUMBER OF SEQ ID NOS: 349  SOFTWARE PAtentin version 3.1	SEQ 1D NO 204   LENGTH: 1163   TYPE:   PRT   OGANIZM: Homo sapiens	Query Match Best Local Similarity 61.3%; Pred. No. 1.1e-312; Length 1163; Matches: 700; Conservative 138; Mismatches 297 Indels 6; Gaps 4;	S VLLITALTICHGFNLDTENAMTFQENARGFQSVVQLQGSRVVVGAPQEIVAANQRGSLY 64	Oy 65 QCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCF 124	OY 125 LFGSNLRQOPOKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRNKEFVSTVMEQLKKSK 184	186 TQFSLMQFSNKFQTHFTFEFRRTSNPLSLLASVHQLQGFTYTATAIQNVVHRLFHASYG	OY 245 ARKNAFKILUVITDGEKFGDPLGYEDNIPEADREGVIRYVIGVGDAFRSEKSRQELNTIA 304	

962

902 963

904

```
1083 PGQEAFWRAQTITVLEKYKVHNPIPLIVGSSIGGLLLLALITAVLYKVGFFKRQYKEMME 1142
                                                                                                                                        RSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNC 1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           125 LFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSK 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                65 QCDYSTGSCEPIRLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             68 QCGYSTGACEPIGLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1023 SIAGCLRFRCDVPSFSVQEELDFTLKGNLSFGWVRQILQKKVSVVSVAEIIFDTSVYSQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQ
                                                                                                  5 VLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLY
 FSFPGLKSLLVGSNLELNAEVMVMNDGEDSYGTTITFSHPAGLSYRYVAEGQKQGQLRSL
                             RLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTS
                                                                                                                                                                                                SIAVCORIOCDIPFFGIOREFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLL
                                                                                                                                                                                                                                                    PGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 58.4%; Score 3480; DB 11; Best Local Similarity 61.1%; Pred. No. 1.5e-310; Matches 697; Conservative 144; Mismatches 294;
                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Gallatin, Michael W.
APPLICANT: Gallatin, Michael W.
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. US20030077278A1el Hun
FILE REFERENCE: 27866/35.004
CURRENT APPLICATION NUMBER: US/09/891,943
CURRENT FILING DATE: 1998-11-16
PRIOR APPLICATION NUMBER: 08/193,043
PRIOR FILING DATE: 1994-08-05
PRIOR APPLICATION NUMBER: 08/362,652
PRIOR APPLICATION NUMBER: 08/362,652
PRIOR APPLICATION NUMBER: 08/362,652
PRIOR FILING DATE: 1994-12-21
PRIOR APPLICATION NUMBER: 08/363,652
PRIOR APPLICATION NUMBER: 08/363,652
PRIOR APPLICATION NUMBER: 08/363,652
PRIOR FILING DATE: 1994-12-21
PRIOR FILING DATE: 1997-10-03
NUMBER OF SEQ ID NOS: 114
                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 4, Application US/09891943 Publication No. US20030077278A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                        È 1143
                                                                                                                                                                                                                                                                                                            E 1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 4
LENGTH: 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-891-943-4
                                                                                                                                                                                                                                                                                                                                                                                              US-09-891-943-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                185 '
                                                                                                                                         964
                                                                                                                                                                                                                                                                                                            1144
                                                                                                                                                                                                                                                                                                                                        1143
                                                                                                                                                                                                1024
                                                                                                               903
                                                                                                                                                                     963
                                                                                                                                                                                                                                                       1084
  185
                                                                                   905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                               g
                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                 a
                                                g
                                                                               ઠે
                                                                                                        요
                                                                                                                                 ઠે
                                                                                                                                                                                              ઠે
                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RLREGGIOSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIE 724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSIT 784
                                                                                                                                                                                                                                                                                                                           124
                                                                                                                                                                                                                                                                                                                                                        127
                                                                                                                                                                                                                                                                                                                                                                                                    245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIA 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSK 184
                                                                                                                                                                                                                                                                                                                                                                                                                                            TLPSLMOYSEEFRIHFTFKEFONNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNG 244
                                                                                                                                                                                                                                                                                               67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DSVIPILLRLNFTLVGKPLLAFRNLRPMLAALAQRYFTASLPFEKNCGADHICQDNLGIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW
                                                                                                                                                                                                                                                                                                                                                                                                                                                         SKPPRDHVFQVNNFEALKTIQNQLREKIFAIBGTQTGSSSSFEHEMSQEGFSAAITSNGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GEEDNRGAVYLPHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                                                                                                           LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAP
                                                                                                                                                                                                                                                                                   QCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCF
                                                                                                                                                                                                                                                                      VLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLY
                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                            . 9
                                                                                                                                                                                                                Length 1163;
                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                           ; Score 3480; DB 9;
; Pred. No. 1.5e-310;
144; Mismatches 294;
EARLIER FILING DATE: 1993-12-23
EARLIER APPLICATION NUMBER: |08/286,889
EARLIER FILING DATE: 1994-08-05
EARLIER APPLICATION NUMBER: |08/362,652
EARLIER FILING DATE: 1994-12-21
EARLIER FILING DATE: 1997-10-03
NUMBER OF SEQ ID NOS: 114
SOFTWARE: PARENTIN Ver. 2.0
                                                                                                                                                                                                              Query Match
Best Local Similarity 61.18;
Matches 697; Conservative 1
                                                                                                                                                                  ORGANISM: Homo sapiens
                                                                                                                                         LENGTH: 1163
TYPE: PRT
                                                                                                                                                                                    US-09-350-259-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7,25
                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                        68
                                                                                                                                                                                                                                                                                                                                                                                    125
                                                                                                                                                                                                                                                                                                                                                                                                                                            185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
```

124 127

64 67

Gaps

~ Human

```
셤
                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                        ઠ
                                                                                                                                                                   g
                                                                                                                                                                                ઠે
                                                                                                                                                                                           a
                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                    1023
                                                                                                                                                                                                                                                                                                                 1022
            305
                                                                                                                                                                                                                                                                          ENNMPRINKTEFQLELPVKYAVYAVYSHGVSTKYINFTAS-ENTSRVMOHQYQVSNLGQ 963
304
                        364
                                     365
                                                424
                                                            425
                                                                        484
                                                                                     485
                                                                                                 544
                                                                                                             544
                                                                                                                          604
                                                                                                                                      604
                                                                                                                                                   664
                                                                                                                                                              664
                                                                                                                                                                          724
                                                                                                                                                                                      724
                                                                                                                                                                                                  784
                                                                                                                                                                                                              784
                                                                                                                                                                                                                           844
                                                                                                                                                                                                                                        844
                                                                                                                                                                                                                                                   904
                                                                                                                                                                                                                                                                902
                                                                                                                                                                                                                                                                                                                            RSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNC
                                                                                                                                                                                                                                                                                                          ARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIA
                        SKPPRDHVFQVNNFBALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGP
                                                LLSTVGSYDWAGGVFLYFSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAP
                                                        RYOHIGLVAMFRONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE
                                                                                                                         GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                 GAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRD
                                                                                                                                                        RLREGQIQSVVTYDLALØSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIE
                                                                                                                                                                                                  DPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSIT
                                                                                                                                                                                                                           FSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW
                                                                                                                                                                                                                                                   RLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTS
                                                                                                                                                                                                                                                                                                                                                    PGQGAFVRSQTETKVEPFEVPNPLPL1VGSSVGGLLLLAL1TAALYKLGFFKRQYKDMMS
                                                                                                                                                                                                                                                                                                                                                                             E 1144
                                                                                                                                                                                                                                                                                                                                                                                         ы
                                                                                                                                                                                                                                                                                                                963
                                                                                                                                                                                                                                                                                                                                        1023
                                                                                                                                                                                                                                                                                                                                                    1084
                                                                                                                                                                                                                                                                                                                                                                1083
                        305
                                   306
                                                365
                                                            366
                                                                        425
                                                                                   426
                                                                                                485
                                                                                                            486
                                                                                                                         545
                                                                                                                                     545
                                                                                                                                                  605
                                                                                                                                                              605
                                                                                                                                                                          999
                                                                                                                                                                                      665
                                                                                                                                                                                                  725
                                                                                                                                                                                                              725
                                                                                                                                                                                                                           785
                                                                                                                                                                                                                                       785
                                                                                                                                                                                                                                                   845
                                                                                                                                                                                                                                                               845
                                                                                                                                                                                                                                                                            905
                                                                                                                                                                                                                                                                                        903
                                                                                                                                                                                                                                                                                                    964
                                                                                                                                                                                                                                                                                                                            1024
                                                                                                                                                                                                                                                                                                                                                                                         1143
                                                                                              8 6 8 6
                                                                                                                                              8 6 8 6
                                                                                                                                                                                                 8 8 8
                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                   상
임
ò
           셤
                        ò
                                  g
                                              ò
                                                           g
                                                                        8 8
                                                                                                                                                                                                                                                  ે
                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                            ò
```

Sequence 2, Application US/09350259
Patent No. US20020062008A1
GENERAL INFORMATION:
APPLICANT: Gallatin, Michael W.
APPLICANT: Van der Vieren, Mohica

US-09-350-259-2

```
543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           65 QCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |||||| || ||||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||   ||  
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             125 LFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                364 FLGAVGSFSWSGGAFLYPPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVQNLVLGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAQGHULLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RLREGOIQSVVTYDLALDSGRPHSRAVFNETKNSTRROTQVLGLTQTCETLKLQLPNCIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   65 DCAAATGMCQPIPLHIRPEAVNMSLGLTLAASTNGSRLLACGPTLHRVCGENSYSKGSCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5 VLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .,
60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 58.0%; Score 3455; DB 9; 3
Best Local Similarity 59.9%; Pred. No. 2.9e-308;
Matches 684; Conservative 162; Mismatches 287;
| TITLE OF INVENTION: No. US20020062008Alel Hur FILE REFERENCE: 27866/35004 | CURRENT APPLICATION NUMBER: US/09/350,259 | CURRENT FILING DATE: 1999-07-08 | EARLIER FILING DATE: 1999-07-08 | EARLIER FILING DATE: 1993-12-23 | EARLIER FILING DATE: 1993-12-23 | EARLIER FILING DATE: 1993-12-23 | EARLIER FILING DATE: 1994-08-05 | EARLIER FILING DATE: 1994-08-05 | EARLIER FILING DATE: 1994-12-21 | EARLIER FILING DATE: 1994-12-31 | EARLIER FILING DATE: 1994-12-31 | EARLIER FILING DATE: 1994-12-31 | EARLIER FILING DATE: 1994-12-31 | EARLIER FILING DATE: 1994-10-03 | NUMBER OF SEQ ID NOS: 114 | SOFTWARE: PATENTIN VET: 2.0 | SEQ ID NOS: 114 | SOFTWARE: PATENTIN VET: 2.0 | SEQ ID NOS: 114 | SOFTWARE: PATENTIN VET: 2.0 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 100 | SEQ ID NOS: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-350-259-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
```

244 243 304

183

8 g õ ያ ያ

8 8

8 6 8

8 6 8 6

ò ద

```
LFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSK 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RSLPISLVFLVPVRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ENNMPRINKTEFQLELPVKYAVYMVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIAVCORIQCDIPFFGIQEEFNATIKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RLREGOIGSWUTYDLALDSGRPHSRAVFNETRNSTRRQTQVLGLTQTCETLKLQLPNCIE
                                                                                                                                                                                                                                                                                                                                                                           PGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKDMMS
                                                                                                                    QTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                      DPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSIT
                                                                                                                                                                                                                                                                                                                                                                                                                                               FSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTS
           RYOHIGLVAMFRONTGMWESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE
                                                                                                                                                                                                                                                                                                                          GAOGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRD
                                                                              ARKNA FKILVVITDGEK FGDPLGY EDVIPEADREGVIR YVIGVGDA FRSEKSRQELNTIA
                                                                                                                                                            LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            E 1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1078
                                                                                                                                                                                                                                                                484
                                                                                                                                                                                                                                                                                                                                              604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                    545
                                                                                                                                                                                                                                                                                                                           605
                                                                                                                                                                                                                                                                                                                                                                  999
                                                                                                                                                                                                                                                                                                                                                                                     664
                                                                                                                                                                                                                                                                                                                                                                                                         725
                                                                                                                                                                                                                                                                                                                                                                                                                            722
                                                                                                                                                                                                                                                                                                                                                                                                                                                 785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        845
                                                                                                                      305
                                                                                                                                          304
                                                                                                                                                             365
                                                                                                                                                                                                    425
                                                                                                                                                                                                                                           485
                                                                                                                                                                                                                                                                                                       544
  125
                                       185
                                                             184
                                                                               245
                                                                                                  244
                                                                                                                                                                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                        8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요 첫 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                ठि वि ठ
                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                8 8 8
                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                 ઠ
                                                                                                                  중 원
                                                                                                                                                           8 8
                 요
                                  ઠે
                                                      g
                                                                              ઠે
                                                                                              셤
                                                                                                                                                                                                                                                      1017
                                                                                                                                                                                                               SIAVCQRIQCDIPFEGIQBEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLL 1083
                                                                                                                                                                         1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           124
                                                                                                             899
                                                                                                                                  963
                               781
                                                   844
                                                                       841
                                                                                          904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   64
             784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VILLSVLASYHGFNLDVEEPTIFQEDAGGFGQSVVQFGGSRLVVGAPLEVVAANQTGRLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S VLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLY
                        FSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW
                                                              ENNMPRINKTEFOLEL PVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMOHOYQVSNLGQ
                                                                                                                                           RSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNC
                                                                                                                                                                                    DPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSIT
                                                                                           RLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        t; Score 3455; DB 11;
t; Pred. No. 2.9e-308;
162; Mismatches 287;
                                                                                                                                                                                                                                                                                                                                                                                                                     Human
                                                                                                                                                                                                                                                                                                                                                               US-09-891943-943-6
US-09-891943-943-6
Publication No. US20030077278A1
GENERAL INFORMATION:
APPLICANT: Gallatin, Michael M.
APPLICANT: Gallatin, Michael M.
TITLE OF INVENTION: No. US20030077278A1el Hum
FILE REFERENCE: 27866/35004
CURRENT FILING DATE: 2001-06-26
PRIOR APPLICATION NUMBER: 08/193,043
PRIOR FILING DATE: 1998-11-16
PRIOR FILING DATE: 1998-11-16
PRIOR FILING DATE: 1998-11-16
PRIOR FILING DATE: 1994-08-05
PRIOR FILING DATE: 1994-08-05
PRIOR FILING DATE: 1994-12-21
PRIOR FILING DATE: 1994-12-21
PRIOR FILING DATE: 1994-12-21
PRIOR FILING DATE: 1994-12-21
STO ID NO STO ID NOS: 114
SOFTWARR: PATENTIN NUMBER: 08/1943,363
PRIOR FILING DATE: 1994-12-21
STO ID NO S: 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          58.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                E 1144
                                                                                                                                                                                                                                                                                                                   D 1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Simil
Matches 684; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1161
                                                                                                                                                                                                                                                                                                                                                 RESULT 15
US-09-891-943-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-891-943-2
                                                                                                                                                                                                                                                                            1078
                                                                                                                                                                                                                                                                                                1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                        782
                                                                                                                                                                                                                                                                                                                    1138
                                                                                                                                                                                                                                                         1084
                                 722
                                                     785
                                                                                            845
                                                                                                                                   905
                                                                                                                                                                           964
                                                                                                                                                                                                                  1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
```

784

781

721

844 841 904 899 963 959

544 543 604 603 664 663 724

423 484 483

424

364 363

Search completed: November 25, 2003, 14:41:06 Job time : 33.4941 secs

```
Appli
Appli
Appli
Appl
Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                      Sequence
                                                                                Sequence
Sequence
Sequence
                                                                                                                      Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                           Sequence
Sequence
                                                                                                                                                                                                     Sequence
                                           Sequence
                                                                                                                                                                                                                                 Sequence
                             Sequence
                                                                                                                                                                                                                                                                                                                             us-us-1/1-49/-3

is Sequence 3, Application US/08173497

is Retent No. 5437958

GENERAL INFORMATION:

APPLICANT: Gallatin, W. Michael

APPLICANT: Gallatin, W. Michael

APPLICANT: Gallatin, W. Michael

APPLICANT: Gallatin, W. Subunit

TITLE OF INVENTION: No. 5437958el Human 2 Integrin Alpha

TITLE OF INVENTION: Subunit

NUMBER OF SEQUENCES: 29

CORRESPONDENCE ADDRESS:

ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun

STREE: 133 S. Wacker Drive, 6300 Sears Tower

CITY: Chicago

STATE: 11linois

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER READABLE FORM:

MEDIUM TYPE: Ploppy disk

COMPUTER: PatentIn Release #1.0, Version #1.25

CURRENT APPLICATION NUMBER: US/08/173,497

FILING DATE:

APPLICATION NUMBER: US/08/173,497

FILING DATE:

APPLICATION: TURNATION:

APPLICATION: TURNATION:

APPLICATION: TURNATION:

APPLICATION: TURNATION:

APPLICATION: TURNATION:

APPLICANT ON TURNATION:

APPLICATION: TURNATION:

APPLICANT ON TURNATION:

APPLICANT ON TURNATION:

APPLICANT ON TURNATION:

APPLICANT ON TURNATION:

APPLICANT ON TURNATION:

APPLICANT ON TURNATION:

APPLICANT ON TURNATION:

APPLICANT ON TURNATION:

APPLICANT ON TURNATION:

APPLICANT ON TURNATION:

APPLICANT ON TURNATION:

APPLICANT ON TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION:

APPLICANT TURNATION TURNATION TURNATION TURNATION TURNATION TURNATION TURNATION TURN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 1; Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
US-08-605-672-2
US-08-482-293A-2
US-09-193-043-2
US-09-193-043-2
US-08-688-307A-2
US-08-688-307A-2
US-08-482-293A-99
US-08-482-293A-99
US-08-943-363-99
US-09-193-043-99
US-09-193-043-55
US-09-183-043-55
US-09-183-043-55
US-08-485-618-53
US-08-485-618-53
US-08-482-652-53
US-08-482-672-53
US-08-482-533
US-08-482-533-US-08-482-672-53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
100.0%; Score 5956;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1153; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: No. 5437958and, Greta E.
REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 35,302
RELECOMMUNICATION INFORMATION:
TELEPRAM: 312-474-6300
TELEFAX: 312-474-6300
TELEFAX: 312-474-0448
TELEFAX: 35-3856
INFORMATION FOR SEQ ID No. 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1153 amino acids
                                                                                                                                                                                                                                                                        ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: linear
MOLECULE TYPE: protein
  RESULT 1
US-08-173-497-3
               요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13, Appl
5424399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Appl
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
                                                                                             2003, 14:13:09 ; Search time 13.7527 Seconds (without alignments)
3547.268 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 3, A
Sequence 43,
Sequence 43,
Patent No. 542,
Sequence 44,
                                                                                                                                                                            1 MALRVLLLTALTL¢HGFNLD.....FKRQYKDMMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 3,
Sequence 3,
Sequence 3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 3, Sequence 3, Sequence 3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                        5.1.6
Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-173-497-3

US-08-286-889-3

US-08-36-652-3

US-08-652-3

US-08-652-3

US-08-605-672-3

US-08-493-363-3

US-09-688-307A-3

US-09-133-043-3

US-09-133-043-3

US-09-131-44-3

US-09-131-44-3

US-08-26-01314-4-3

US-08-131-497-4

US-08-131-497-4

US-08-131-497-4

US-08-136-618-4

US-08-136-618-4

US-08-136-618-4

US-08-136-618-4

US-08-136-618-4

US-08-136-618-4

US-08-136-618-4

US-08-136-618-4

US-08-136-618-4

US-08-131-497-2

US-08-131-497-2

US-08-131-497-2

US-08-131-497-2

US-08-131-497-2

US-08-131-497-2

US-08-131-497-2

US-08-131-497-2

US-08-131-497-2

US-08-131-497-2

US-08-131-497-2
                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                              328717 segs, 42310858 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUMMARIES
                  GenCore version (c) 1993 - 2003
                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                     - protein search, using sw model
                                                                                                                                                                                                       BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                 Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB
                                                                                                                                                US-09-902-481B-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1153
1153
1153
1153
11153
11152
11152
11163
11163
11163
11163
                                                                                              November 25,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query
Match 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           334880
334880
3348880
3344880
344880
344880
344880
                                                                     OM protein
                                                                                                                                                                              Sequence:
                                                                                                                                                                                                                                              Searched:
                                                                                                                                                                                                                                                                                                                                                                                               Database
                                                                                              Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Result
```

ö

ò

6 8

\$ B

S 8

6 8 6

```
61 GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KKSKTLFSLMQYSEEFRIHFFKSFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                      2 Integrin Alpha Subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                     Sequence 3, Application US/08286889
Patent No. 5470953
GENERAL INFORMATION:
APPLICANT: Gallatin, W. Mich
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. 5470953el Human 2 Integri
NUMBER OF SEQUENCES: 51
COMPANDESSEE: ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray &
STREET: 233 South Wacker Drive, 6300 Sear Tower
                                                                                                                                                                                                                                        STREET: 233 SOULD MACHINE.
CITY: Chicago
CITY: Chicago
STATE: 1llinois
COUNTRY: United States
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PARENTIN Release #1.0, Version #1.2
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/286,889
FILING DATE:
CLASSIFICATION NUMBER: US 08/173,497
FILING DATE: 23-DEC-1993
ATTORNEY AGENT INFORMATION:
NAME: Williams Jr., Joseph A.
REGISTRATION NUMBER: P38,659
REPRENCE/DOCKET NUMBER: 27866/32168
TELEPHONE: 312-474-6300
TELEPHONE: 312-474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 5956; 100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 1153 amino acids
TYPE: amino acid
STRANDEDNESS: single
                Query Match
Best Local Similarity 100.
Matches 1153; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear
MOLECULE TYPE: protein
MMSEGGPPGAEPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
1141
                            1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
ઠે
                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                                                                                                                                        300
                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                               GLCFLFGSNLRQQPQKFPEALRGCPQEDSD1AFLIDGSGS11PHDFRRMKEFVSTVMEQL
                                                                                             GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                                                          KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                           241 ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                      NTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT
                                                                                                                                                                                                                                                                                        NTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT
                                                                                                                                                                                                                                                                                                                                                        SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                     LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                       LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HYYEQTRGGQVSVCPL PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DLTVGAQCHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DLTVGAQGHVLLLKSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LSITESFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITPDVDSKASLGNKLLLKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NVTSENNMPRTNKTEFQLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NVTSENNMPRINKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD
                                                                                                                                                                                                        ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                                       SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1021
                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      961
                                                                                                          121
                                                                                                                                            181
                                                                                                                                                                        181
                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                            121
                                           61
```

8 &

8 8

8 6 8

8 6 8 6

8 6 8 6 8 6 8 6

ö

09

120 1120 1180 1240 2240 2240 3300

ờ 음. ờ

```
LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP 480
6300 Sear Tower
                                                   ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/485,618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 5956;
100.0%; Pred. No. 0;
iive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                        NAME: Williams Jr., Joseph A.
REGISTRATION NUMBER: 38,659
RECISTRENCE/DOCKET NUMBER: 27866/32797
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-474-6300
                                                                                                                                                                              CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/173,497
FILING DATE: 23-DEC-1993
PRIOR APPLICATION NUMBER: US 08/286,889
FILING DATE: 5-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/362,652
FILING DATE: 21-DEC-1994
ATTORNEY/AGENT INFORMATION:
NAME: Williams Jr., Joseph A.
233 South Wacker Drive,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1153 amino acids
             CITY: Chicago
STATE: Illinois
COUNTRY: United States
                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: 312-474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 100.
Best Local Similarity 100.
Matches 1153; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              , MOLECULE TYPE: protein US-08-485-618-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: linear
                                                                                                                                                                       FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TLLPGGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1081 TLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LGQRSLPISLVFLVPVRUNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV 1020
                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                  DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK 660
                                                                                                                                                                                                                                                                                                                                                          720
                                                                                                                                                                                                                                                                                                                                                                        STRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLIQTCETLKLQLP 720
                                                                                                                                                                                                                                                                                                                                                                                                                  780
                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        960
                                                                                                420
                                                                                                                            480
                                                                                                                                                        480
                                                                                                                                                                                                          HYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA 540
                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORSWRLACESASSTEVSĜALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA 900
              NTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT 360
                                                                                                                          IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LSITFSFMSLDCLVVGGFREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                    HYYEQTRGGOVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                  NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
                             IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                  NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NVTSENNMPRTNKTEFQLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VNCSIAVCQRIQCDIPFEGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTABILFNDSVF
                                                                     SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                 DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK
                                                                                                                                                                                                                                                                                                                                                          STRDRLREGGIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 Integrin Alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Gallatin, W. Michael
APPLICANT: Gallatin, W. Michael
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. 5728533el Human 2 Integrin Alpha
NUMBER OF SEQUENCES: 103
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-485-618-3
; Sequence 3, Application US/08485618
Patent No. 572853
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MMSEGGPPGAEPO 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1021
                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1141
              301
                                         301
                                                                       361
                                                                                                361
                                                                                                                            421
                                                                                                                                                        421
                                                                                                                                                                                    481
                                                                                                                                                                                                               481
                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            196
                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                        <u>۾</u>
                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ପ୍ଧ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      े
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
              ò
                                    g
                                                                                                                   ∂
                                                                                                                                                  원 수 명
                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                         ò
                                                                    ò
```

300 360 120 120 121 GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL 180 240 240 241 ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL 300 420 SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV 420 180 9 9 GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN 1 MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR 61 GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK 121 GLCFLFGSNLRQQPQKFPEALKGCPQEDSDIAFLIDGSGSI1PHDFRRMKEFVSTVMEOL KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL NTIASKPPRDHVFQVNNFEALKTIQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAAIT SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV 1 MALRVILLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR Gaps ö Length 1153, Indels

ö

```
61 GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCHVQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MALRVLLLTALTICHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                                                                                                                                                                                                 Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                 DB 1;
                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 5956;
100.0%; Pred. No. 0;
ive 0; Mismatches
                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/173,497
FILING DATE: 23-DEC-1993
PRIOR APPLICATION NUMBER: US 08/286,889
FILING DATE: 5-AUG-1994
ATTORNEY AGENT INFORMATION:
NAME: Williams Jr., JOSEPh A.
REGISTATION NUMBER: 38,659
REFERENCE/DOCKET NUMBER: 27866/32391
TELECOMMUNICATION:
CURRENT APPLICATION DATA: US/08/362,652
                                                                                                                                                                                                                TELEPAX: 312-47-
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.
Matches 1153, Conservative
                                                                                                                                                                                                                                                                                              TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear
MOLECULE TYPE: protein
                         APPLICATION NUMBER:
FILING DATE:
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                     US-08-362-652-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 3
                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          윤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1081 TLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD 1140
                                                                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                                                                                                                                                                                                                                                                                                                                                                                              960
                                                     540
                                                                                540
                                                                                                        900
                                                                                                                                   9
                                                                                                                                                             9
                                                                                                                                                                                                                720
                                                                                                                                                                                                                                           720
                          480
                                                                                                                                                                                        9
                                                                                                                          IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                          901 NVTSENNMPRTUKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HYYEQTRGGOVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                            DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK
                                                                                                                                                                                                                  STRDRLREGGIOSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP
                                                                                                                                                                                                                                   STRDRLKREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP
                                                                                                                                                                                                                                                                                    ORSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA
                                                                                                                                                                                                                                                                                                                                                                                               DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK
                                                                                                                                                                                                                                                                      NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                                                                                                                                                                                                                                                                                                                     NVTSENNMPRTNKTEFOLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LGQRSLP1SLVFLVPVKLNQTV1WDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VNCSIAVCORIOCDIPPEGIOEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
                                                                                                         IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                     HYYEQTRGGOVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 Integrin Alpha Subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 3. Application US/08362652

Patent No. 5766850

GENERAL INFORMATION

JETICLANT: Van der Vieren, Monica
TITLE OF INVENTION: No. 5766850el Human 2 Integrin Alp

NUMBER OF SEQUENCE: 93

CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Boru

STREET: 233 South Wacker Drive, 6300 Sear Tower

CITY: Chicago

STREET: 111nois

COMPUTER: Inlinois

COMPUTER: READBLE FORM:
MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

COMPUTER: IBM PC compatible

COMPUTER: IBM PC Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: United States
ZIP: 60606-6402
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1141 MMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-362-652-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1141
                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021
                          121
                                                     481
                                                                             181
                                                                                                         541
                                                                                                                                                             601
                                                                                                                                                                                       601
                                                                                                                                                                                                                661
                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                         임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               음
                                                                             셤
                                                                                                                             요
                                                                                                                                                           ò
                                                                                                                                                                                   유
                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                  ò
                                                                                                      ò
```

ö

Gaps

ö

240

180

240 300 360 360 420 420 480

300

120 180

120

9

540 600 600 9

540

Tue

```
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                    US-08-605-672-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                       1020
                                                                                     780
                                                                                                                 780
                                                                                                                                               840
                                                                                                                                                                          840
                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                    721 NCIEDPVSPIVLRINFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                                            901 NVTSENNWPRTNKTEFQLELPVKYAVYWVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                        LGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV
                                                                                                                                                                                                                                                                                                                                                                                                VNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHWHLLIVSTAEILFNDSVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                        TLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD
                           STRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP
                                           661 STRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLIQTCETLKLQLP
                                                                                                                                          LSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                                                                                      LGORSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV
                                                                                                                                                                                                                                                                                                                                                                               VNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
                                                                                                                                                                                                                                                                                                                                                                                                                                       TLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD
DLTVGAQGHVLLLRSQPVLRVKAIMBFNPREVARNVFECNDQVVKGKBAGEVRVCLHVQK
                                                                                    NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFERNCGNDNICQDD
                                                                                                                                                                                                     ORSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA
                                                                                                                                                                                                                                                              NVTSENNMPRTNKTEFQLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 Integrin Alpha Subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 3. Application US/08605672
Patent No. 5817515
GENERAL INFORMATION: W. Michael
APPLICANT: Gallatin, W. Michael
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. 5817515el Human 2 Integrin Alpha
CORRESPONDENCE ANDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
STREET: 233 South Wacker Drive, 6300 Sear Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: Chicago
STATE: Illinois
COUNTRY: United States
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: BW PC compatible
COMPUTER: BY PC compatible
COMPUTER: BY PC compatible
COMPUTER: BY PC compatible
COMPUTER: DATEMIT Release #1.0, Version #1.25
APPLICATION NUMBER: US/08/605,672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/173,497
FILING DATE: 23-DEC-1993
FILING DATE: 5-AUG-1994
PRIOR APPLICATION NUMBER: US 08/286,889
FILING DATE: 5-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/362,652
FILING DATE: 21-DEC-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-605-672-3
                                                                                                                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1141
                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                                                                                                                                                     1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1081
                            661
                                                                                    721
                                                                                                                                            781
                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
                                                                                                      a
                                                                                                                                                              엄
                                                                                                                                                                                             ò
                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
유
                           ò
                                                    g
                                                                                  ò
                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 GSLYQCDYSTGSCEPIRLQVPVEAVMASLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481 HYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP
                                                                                                                                                                                                                                                                                                                                                                                                                          181 KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVOSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DLTVGAQGHVLLLRSQPVLRVKAIMEFNPRBVARNVFECNDOVVKGKEAGEVRVCLHVOK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCIEDPVSPIVLRLNPSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241 ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301 NTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRDRLREGQ1QSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                                                                                                                                                                                                                                                                                      1 MALRVILLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                           Length 1153;
                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                           .;
7
                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                           Score 5956;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                Mismatches
                38,659
FR: 27866/32684
NAME: Williams Jr., Joseph A. REGISTRATION NUMBER: 38,659 REFRENCE/DOCKET NUMBER: 2786/ TELECHONE: 312-474-6300 TELEFAX: 312-474-0448
                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                  TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1153 amino acids
                                                                                                                                                                                                                                                                                                                      Query Match 100.
Best Local Similarity 100.
Matches 1153; Conservative
                                                                                                                                                                                                  TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
```

ö

Gaps

9 9 180 240 240 300

120 120 180 360

420 420 480 480 540 540 600 600 999 9 720 720

```
241 ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRVVIGVGDAFRSEKSRQEL 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LSITESEMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NVTSENNMPRINKTEFQLELPVKYAVYMVTSHQVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                        NTIASKPPRDHVPQVNNFEALKTIONOLREKIFAIEGTOTGSSSSFEHEMSOEGFSAAIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NTIASKPPRDHVFQVNNFEALKTIQNQLREKIPAIEGTQTGSSSSFEHEMSQEGFSAAIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                                                                                                            KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                         KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                 ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP
                                                                                                                                                                                                                   61 GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                                                                                                   GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                                                                                                                                              121 GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                                                                           MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                             ö
                                                                                                   Length 1153;
                                                                                                                             Indels
                                                                                                  2;
                                                                                                                             ;
0
                                                                                                   8
                                                                                                  100.0%; Score 5956;
100.0%; Pred. No. 0;
ive 0; Mismatches
1153 amino acida
                                                                                                Query Match
Best Local Similarity 100.
Matches 1153; Conservative
             TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                          TOPOLOGY: linear MOLECULE TYPE: protein
 LENGTH: 11

TYPE: amir

TYPE: ATANDEDNES;

TOPOLOGY:

MOLECULE TYPE
US-08-482-293A-3
LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                                                                                                                           Н
                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                      셤
                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                             6.
                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                            ઠે
                                                                                                                                                                                                                                    1080
                                                                                                                                                                                                                                                                                               1140
                                                                                                                                                                          1020
                                                                                                                                                                                                                                                                                                              961 LGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV 1020
                                                                                                                                                                                                                                                                 1080
                              840
                                                          900
                                                                                     900
                                                                                                                   960
                                                                                                                                              960
 840
                                                          LSITESFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                LSITESFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                  901 NVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                        LGQRSLPISLVPLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV
                                                                                                                                                                                                                                    VNCSIAVCORIQCDIPFEGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
                                                                                                                                                                                                                                                    1021 VNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
                                                                                                                                                                                                                                                                                               TLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD
                                                                                                                   NVTSENNMPRINKTEFOLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CENERAL INFORMATION:
APPLICANT: Gallatin, W. Michael
APPLICANT: Gallatin, W. Michael
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. 5831029el Human 2 Integrin Alpha Subunit
NUMBER OF SEQUENCES: 103
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  & Borun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE: Marshall, O'Toole, Gerstein, Murray or STREET: 233 South Macker Drive, 6300 Sear Tower CITY: Chicago STATE: Illinois COUNTRY: United States COUNTRY: United States COUNTRY: READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/482,293A
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Williams Jr., Joseph A.
REGISTRATION NUMBER: 38,659
REFERENCE/DOCKET NUMBER: 27866/32684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 08/286,889
FILING DATE: 5-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/362,652
FILING DATE: 21-DEC-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      08/173,497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 3, Application US/08482293A
Patent No. 5831029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US OF
FILING DATE: 23-DEC-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPAONE: 312-474-6300
TELEFAX: 312-474-0448
TELEX: 25-3866
INFORMATION FOR SEQ ID NO: 3
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                         1141 MMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                          RESULT 6
US-08-482-293A-3
                                                                                                                                                                                                                                                                                               1081
                                                                                                                   901
                                                                                                                                                                             961
                                                                                                                                                                                                                                    1021
   781
                                                                                                                                        g
                                                                                                                                                                        ò
                                                                                                                                                                                                   g
                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                d
   ઠે
                             g
                                                        ò
                                                                                  셤
                                                                                                                   ઠે
```

840

840 900 960

780

us-09-902-481b-1.rai

MALRVLLITALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR 60	121 GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIGGSGSIIPHDFRRMKEVSTYWBGL 180		CPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTÇTGSSSSFEHEMSGEGF STVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAALILLRNR 	421 LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP 480 	481 HYYEOTRGGOVSVCELPRGGRARWQCDAVLYGEQGOPWGRFCAALTVLGDVNGDKLTDVA 540 	541 IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV 600 	601 DLTVGAQGHVLLLKSQPVLRVKAIMEPNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK 660	661 STRDRLREGGIQSVVTYDLALDSGRPHSRAVFNETRNSTRRQTQVLGLTQTCETLKLQLP 720 	721 NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD 780 	781 LSITESFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS 840	841 QRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA 900 	901 NVTSENNMPRINKTEPOLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSN 960 	961 LGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV 1020 	1021 VNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF 1080 
8 & 8 &	8 6 8 6	6 8 6	a & a	ν <sub>γ</sub> ο qα	oy da	& . <sup>લ</sup>	B &	λ <sub>O</sub>	oy O	λό a	o, o	cy B	B &	č aa
Db   901 NVTSENNMPRTNKTEFQLELPVKYAVYMVYTSHGVSTKYLNFTASENTSRVMQHQYQVSN 960   961 LGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV 1020   961 LGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV 1020   961 LGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLFSHSDFLAELRKAPV 1020   962 VKCSIAVCQRIQCDIPFFGTQCEFNATLKGNLSFDWYIKTSHNLLLVSTAELLFNDSVF 1080   963 VKCSIAVCQRIQCDIPFFGTQCEFNATLKGNLSFDWYIKTSHNLLLVSTAELLFNDSVF 1080   964 VKCSIAVCQRIQCDIPFFGTQCEFNATLKGNLSFDWYIKTSHNLLLVSTAELLFNDSVF 1080   964 VKCSIAVCQRIQCDIPFFGTQCEFNATLKGNLSFDWYIKTSHNLLLVSTAELLFNDSVF 1080   965 VKCSIAVCQRIQCDIPFFGTQCEFNATLKGNLSFDWYIKTSHNLLLVSTAELLFNDSVF 1080   966 VKCSIAVCQRIQCDIPFFGTQCEFNATLKGNLSFDWYIKTSHNLLLVSTAELLFNDSVF 1080   966 VKCSIAVCQRIQCDIPFFGTQCEFNATLKGNLSFDWYIKTSHNLLLVSTAELLFNDSVF 1080   966 VKCSIAVCQRIQCDIPFFGTQCEFNATLKGNLSFDWYIKTSHNLLLVSTAELLFNDSVF 1080   966 VKCSIAVCQRIQCDIPFFGTQCEFNATLKGNLSFDWYIKTSHNLLLVSTAELLFNDSVF 1080   966 VKCSIAVCQRIQCDIPFFGTQCEFNATLKGNLSFDWYIKTSHNLLLVSTAELLFNDSVF 1080   966 VKCSIAVCQRIQCDIPFFGTQCEFNATLKGNLSFDWYIKTSHNLLLVSTAELLFNDSVF 1080   966 VKCSIAVCQRIQCDIPFFGTQCEFNATLKGNLSFDWYIKTSHNLLLVSTAELLFNDSVF 1080   966 VKCSIAVCQRIQCDIPFFGTQCEFNATLKGNLSFDWYIKTSHNLLLVSTAELLFNDSVF 1080   966 VKCSIAVCQRIQCDIPFFGTQCEFNATLKGNLSFDWYIKTSHNLLLVSTAELLFNDSVF 1080   966 VKCSIAVCQRIQCDIPFFGTQCEFNATLKGNLSFDWYIKTSHNLLLVSTAELLFNDSVF 1080   966 VKCSIAVCQRIQCDIPFFGTQCEFNATLKGNLSFDWYIKTSHNLLLVSTAELLFNDSVF 1080   966 VKCSIAVCGRIQCDIPFFGTQCEFNATLKGNLSFDWYIKTSHNLLLVSTAELLFNDSVF 1080   966 VKCSIAVCGRIQCDIPFFGTQCEFNATLKGNLSFDWYIKTSHNLLLVSTAELLFNDSVF 1080   966 VKCSIAVCGRIQCDIPFFGTQCEFNATLKGNLSFDWYIKTSHNLLTVTAELFNDSVF 1080   966 VKCSIAVCGRIQCDIPFFGTQCEFNATLKGNLSFDWYIKTSHNLLTVTAELFNDSVF 1080   966 VKCSIAVCGRIQCDIPFFGTQCEFNATLKGNLSFDWYIKTSHNLLTVTAELFNDSVF 1080   966 VKCSIAVCGRIQCFNATLKGNLSFDWYIKTSHNLTVTAELFNDSVF 1080   966 VKCSIAVCGRIQCEFNATLKGNLSFDWYIKTSHNLTVTAELFNDSVF 1080   966 VKCSIAVCGRIQCFNATLKGNLSFDWYIKTSHNLTVTAELFNATLFNATLFNDSVF 1080   966 VKCSIAVCGRIQCFNATLKGNUSFDWYIKTSHNLTVTAELFNATLFNATLFNATLFNATLFNATLFNATLFNATLFNA	1081 TLLPGGGAFVRSGTETK	Db 1141 MMSEGGPPGAEPQ 1153  RESULT 7  US-08-943.363-3  ; Sequence 3, Application US/08943363  ; Patent No. 5837478	; GENERAL! INFORMATION: ; APPLICANT: Gallatin, W. Michael ; APPLICANT: Van der Vieren, Monica ; TITLE OF INVENTION: No. 5837478el Human 2 Integrin Alpha Subunit ; NUMBER OF SEQUENCES: 114	CARRESPONDENCE ADDRESS:  CARRESPONDENCE ADDRESS:  STREET: 233 South Wacker Drive, 6300 Sear Tower  CITY: Chicago	nit nit -64	### ### ##############################	APPLICATION NUMBER: US/08/943,363 FILING DATE: CLASSIFICATION 1530	AFPLICATION DAIA: LICATION NUMBER: US 08/173,49 ING DATE: 23-DEC-1993 APPLICATION DATA:	FILING DATE: 5-AUG-1994 	ATTORNEY/AGENT INFORMATION:  NAME: Williams Jr., Joseph A.  REGISTRATION WHERE: 38,659	TELECOMMUNICATION INFORMATION:   TELECOMMUNICATION   TELECOMMUNICATION:   TELEPHONE: 312-474-6300   TELEFEX: 312-474-0448	INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS: FUNTH: 1153 amino acids	STRANDEDNESS: single STRANDEDNESS: single TOPOLOGY: linear STRANDETTYPE: protein	Ouery Match Ouery Match Best Local Similarity 100.0%; Pred. No. 0; Matches 1153; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

요 ò g

```
1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960
                       540
                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                   999
                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                              840
                                                               9
                                                                                                   600
                                                                                                                                           9
                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LGGRSLPISLVFLVPVRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1021 VNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD
                                                                                                                                                                                                                         NYTSENNMPRINKTEFOLELPVKXAVYMVYSHQVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1021 VNCSIAVCORIOCDIPFFGIOEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
541 IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                  LSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                                                                                                                                                                               LSITESPMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                               IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                            NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                             DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Gallatin, Michael W.
APPLICANT: Gallatin, Michael W.
APPLICANT: Gallatin, Michael W.
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. 6432404el Human Beta-2
FILE REPRENCE: 27866/36646
CURRENT APPLICATION NUMBER: US/09/688,307A
CURRENT PELING DATE: 2000-10-13
PRIOR APPLICATION NUMBER: 09/69,672
PRIOR FILING DATE: 1996-02-22
PRIOR APPLICATION NUMBER: 08/605,672
PRIOR APPLICATION NUMBER: 08/13,497
PRIOR FILING DATE: 1994-08-05
PRIOR FILING DATE: 1994-08-05
PRIOR FILING DATE: 1994-12-21
PRIOR APPLICATION NUMBER: 08/362,652
PRIOR APPLICATION NUMBER: 08/362,652
PRIOR APPLICATION NUMBER: 08/362,652
PRIOR APPLICATION NUMBER: 08/943,363
PRIOR FILING DATE: 1994-12-21
PRIOR APPLICATION NUMBER: 08/943,363
PRIOR FILING DATE: 1997-11-03
NUMBER: OF SEQ ID NOS: 114
SOFTWARE: PALENTIN VEY: 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 3, Application US/09688307A; Patent No. 6432404; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1141 MMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1141
                                                                 541
                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                         481
                                                                                                                                               601
                                                                                                                                                                                     601
                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       · 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                    ठे
                                                                                                   윤
                                                                                                                                               ઠ
                                                                                                                                                                             셤
                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                               6 8
                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                    <u>8</u>. &
                                                                                                                                                                                                                                                                                                                                                                                                                                                            કે
    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LGAPRYQHIGLVAMFRQNTGWAESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GLCFLFGSNLROOPOKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121 GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KKSKTLFSLMQYSBEPRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 3; Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 100.0%; Score 5956; Best Local Similarity 100.0%; Pred. No. 0; Matches 1153; Conservative 0; Mismatches
                                                                                                                                                                                                                                                           PACENT NO. SLLLSJ.
PACENT OLD STALLSJ.
GENERAL INFORMATION:
APPLICANT: Gallatin, Michael W.
APPLICANT: Gallatin, Michael W.
APPLICANT: Gallatin, Monaca Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stall Stal
                                                                                                                                                                                                                                                                                                                                                                           US/09/193,043
                                                                                                                                                                                                                                Sequence 3, Application US/09193043
Patent No. 6251395
                                                                                        MMSEGGPPGAEPO 1153
                                                                                                             US-09-193-043-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                        1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
```

qq

ò

ઠે g ð 8 6 8

S S ò g ò g ે 셤

임

ò g ઠે g ò 엄 ò 셤 ò

ઠ

```
1020
                                                                                                          1021 VNCSIAVCQRIQCDIPPFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF 1080
                        1020
                                                                                                                                                                                   1081 TLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                           961 LGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                           1021 VNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
                                                                                                                                                             1081 TLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                             RESULT 10
US-08-476-062A-43
i Sequence 43, Application US/08476062A
i Patent No. 5877275
j GENERAL INFORMATION:
APPLICANT: Arnaouc, M. Amin
TITLE OF INVENTION: RESPONSES WITH BETAZ INTEGRINS
NUMBER OF SEQUENCES.
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 2; Length 1152;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
SOFTWARE: FEASTER: WINDOWSS VERSION 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/476,062A
FILING DATE: U7-JUN-1995
PRIOR APPLICATION NUMBER: 08/216,081
FILING DATE: 21-MAR-1994
APPLICATION NUMBER: 07/637,830
FILING DATE: 04-JAN-1991
APPLICATION NUMBER: 07/539,842
FILING DATE: 18-JUN-1990
APPLICATION NUMBER: 07/539,842
FILING DATE: 18-JUN-1990
APPLICATION NUMBER: 07/212,573
FILING DATE: 18-JUN-1988
ATTORNEY,AGENT INFORMATION:
NAME: Freeman, John W.
REGISTRATION NUMBER: 29,066
REFERENCE/POCKET NUMBER: 29,066
REFERENCE/POCKET NUMBER: 00786/068003
TELESPHONE: 617/542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99.5%; Score 5925.5; 99.7%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM Compatible OPERATING SYSTEM: Windows95
                                                                                                                                                                                                                                      1141 MMSEGGPPGAEPO 1153
                                                                                                                                                                                                                                                          1152 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: US
ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: protein FRAGMENT TYPE: internal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
Matches 1150; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-476-062A-43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                  용
                                                                                           ઠે
                                                                                                                           셤
                                                                                                                                                               ò
                                                                                                                                                                                              셤
                                                                                                                                                                                                                                      ઠે
                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRDRLREGGIQSVVTYDLALDSGRPHSRAVFNETKWSTRRQTQVLGLTQTCETLKLQLP 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    960
                                                                                                                                                                                                                                                       GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK 120
                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                   9
                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LSITESFMSLDCLVVGGPREFNYTVTVRNDGEDSYRTQVTFFFDLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NVTSENNMPRINKTEFQLELPVKYAVYMVVTSHCVSTKYLNFTASENTSKVMQHQYQVSN
                                                                                                                                                                                                                                                                             61 GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                                                                                                                                                                                                              121 GLCFLFGSNLRQQPQKFFBALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKBFVSTVMEQL
                                                                                                                                                                                                                                                                                                                                                                                                                         KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241 ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HYYEQTRGGOVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA
                                                                                                                                                                                                                                                                                                                              GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NTIASKPPRDHVFQVNNFBALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LGAPRYQHIGLVAMFRQNIGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HYYEQTRGGOVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRDRLKEGGIOSVVTYDLALDSGRPHSRAVFNETKNSTRRQTOVLGLIQTCETLKLOLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA
                                                                                                                                                                                 1 MALRVILLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                  KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK
                                                                                                                                                Gaps
                                                                                                                                                ö
                                                                                                            DB 4; Length 1153;
                                                                                                                                              IndelB
                                                                                                                                              .
0
                                                                                                          k; Score 5956; I
k; Pred. No. 0;
0; Mismatches
                                                                                                          Query Match
Best Local Similarity 100.0%;
Matches 1153; Conservative 0
                                   TYPE: PRT
ORGANISM: Homo sapiens
SEQ ID NO 3
LENGTH: 1153
                                                                        US-09-688-307A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 901
```

g

임

ò g ò g ò g ò 엄 õ

ò

g

a

ò g

ò

ä

```
1080 TLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD 1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MALRVLLITALTLCHGFNLDTENAMTFQENARGFGGSVVQLQGSRVVGAPQEIVAANQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MALRVILLTALTLCHGFNLDTENAMTFQENARGFGGSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ۲,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1152;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2; Indels
                                                                                                                Sequence 43, Application PC/TUS9601314
GENERAL INFORMATION:
APPLICANT: M. Amin Arnaout
TITLE OF INVENTION: METHODS FOR IDENTIFYING INTEGRIN
TITLE OF INVENTION: ANTAGONISTS
NUMBER OF SEQUENCES: 78
CORRESPONDENCES: ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 5925.5;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: John W. Freeman
REGISTRATION NUMBER: 29,066
REGISTRATION NUMBER: 00786/267001
TELEPHONE: (617) 542-5070
TELEPHONE: (617) 542-806
TELERS: 200154
INFORMATION FOR SEQ ID NO: 43:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                         ADDRESSEE: Fish & Richardson P.C.
STREET: 225 Franklin Street
CITY: Boston
STATE: Massachusetts
COUNTRY: U.S.A.
ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
COMPUTER: IBM PS/2 Model 502 or 553X
OPERATING SYSTEM: MS-DOS (Version 5.0)
SOFTWARE: MordPerfect (Version 5.0)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US96/01314
FILING DATE: 30-JAN-96
PRIOR APPLICATION NUMBER: 08/380,167
FILING DATE: 30-JAN-95
RICHALOGATION NUMBER: 08/380,167
FILING DATE: 30-JAN-95
ATPORNEY AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                              ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99.5%;
                             MMSEGGPPGAEPQ 1153
                                                      1140 MMSEGGPPGAEPQ 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 99.7'
Matches 1150; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
roPOLOGY:
PCT-US96-01314-43
                                                                                             RESULT 11
PCT-US96-01314-43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                             1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                    요
                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TLEPGGGAFVRSQTETKÝEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LGORSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   899
                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                     539
                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                240
                                                                                                                                                                                                  300
                                                                                                                                                                                                               241 ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL 300
                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                        HYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA 540
                                                                   120
                                                                                                                      180
                                           GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                               541 IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRROTQVLGLTQTCETLKLQLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LSITESFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VNCSIAVCQRIQCDIPFFGIQEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                                           HYYEQTRGGQVSVCPLPRG-RARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540 IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCIEDPVSPIVLRINFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                            KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRDRLREGGI QSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP
     GSLYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVK
                                                                                             GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                                                               KKSKTLFSLMQYSEEFRIHFTFKEFONNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                  1TNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                      SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                         LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  961
                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                             61
                                                                      61
                                                                                               121
                                                                                                                      121
                                                                                                                                                181
                                                                                                                                                                          181
                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                  상 점
                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                        8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                               6 B 6
                                                                    유
                                                                                                                                         ò
                                                                                                                                                                    a
                                            ઠ
                                                                                              ò
                                                                                                                  a
```

120 120 180 180 240 240 300 300

9 9

Gaps

ä

09

120 180 180 240 240 300 300 360 360 420 420 480 480 540 539 900

120

```
181 KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                             241 ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                                         STRDRLREGGIOSVVTYDLALDSGRPHSRAVFNETKNSTRROTOVLGLTOTCETLKLOLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QRSWRLACESASSTEVSGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCI EDDVSPI VLRINFSL VGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNI CQDD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LSITFSFMSLDCLVVGGPRESNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA
                                                                                                                                                                                                       241 ITNGARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                              NTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT
                                                                                                                                                                                                                                                                                                                                                                        SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLP
                                                                                                                     1 MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                                                                                                                        KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LSITESFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                        1 MALRVLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQR
                                                                                                                                                                                              GLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                   Gaps
                                                               Length 1152;
                                                                                   1;
                                                                                   Indels
                                                               . 9
                                                                                  ;
                                                               80
                                                             Query Match
99.5%; Score 5925.5;
Best Local Similarity 99.7%; Pred. No. 0;
Matches 1150; Conservative 0; Mismatches
APPLICATION NUMBER: 212,573
FILING DATE: 28-JUN-1988
                              LENGTH: 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                             121
                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                ;
5424399-2
                   SEQ ID
                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                       윱
                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       염
                                                                                                         ઠ
                                                                                                                            셤
                                                                                                                                                    ઠે
                                                                                                                                                                    ద
                                                                                                                                                                                             ò
                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1139
                                                                                                                                                                                                                                                                                                                                                                                                                                       960
                                                                                                                                                                                                                                                                                                                                                                                                                                                           959
                                                                                                                              540
                                                                                                                                                                                                                  99
                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                             779
                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                        839
                                                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                                                899
 360
                    360
                                           420
                                                              420
                                                                                   480
                                                                                                         480
                                                                                                                                                    539
                                                                                                                                                                         9
                                                                                                                                                                                              599
                                                                                                                                                                                                                                        629
                                                                                                                                                                                                                                                                                 719
                                         NVTSENNMPRINKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                               HYYEQTRGGQVSVCPLPRG-RARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                                    NCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                                                                                                                                                                                                                                  LSITPSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                                                                                                                                                             QRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LGQRSPPISLVFLVPVRLNQTVIMDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT
           LGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAP
                                                                                                                              HYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA
                                                                                                                                                                         IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLV
                                                                                                                                                                                                                   DLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK
                                                                                                                                                                                                                                                                                                        NCIEDPVSPIVLRINFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDD
                                                                                                                                                                                                                                                                                                                                                              LSITESFMSLDCLVVGGPRESNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRS
                                                                                                                                                                                                                                                                                                                                                                                                                                        NVTSENNMPRINKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LGQRSLP1SLVFLVPVRLNQTV1WDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VNCSIAVCQRIQCDIPFFGIQEBFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HETERODIMERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: HUMAN CR3a/b HE NUMBER OF SEQUENCES: 12 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/78,871 FILING APPLICATION DATA: PRIOR APPLICATION DATA: FILING APPLICATION NUMBER: 539,842 FILING DATE: 18-JUN-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 12
5424399-2
;Patent No. 5424399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1140
                    301
                                                              361
                                                                                   421
                                                                                                         421
                                                                                                                              481
                                                                                                                                                    481
                                                                                                                                                                         541
                                                                                                                                                                                               540
                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                        009
                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                   099
                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                        901
                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      960
301
                                         361
                                                                                                                                                                                                                                 8 8
                                                                                                                                                                                                                                                                            д
                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                  8
6
8
                                                                                                                                                                                                                                                                                                                                                                                                                                 상 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
ò
                                         ઠે
                                                             d
                                                                                  ò
                                                                                                   g
                                                                                                                             ઠે
                                                                                                                                             임
                                                                                                                                                                     ò
                                                                                                                                                                                       g
                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
```

599

629

720 719 780

999

179

840 839 900 899

Tue

셤

ò

ò

ò 임

```
1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          784
                                                                                                                                                                                                                                                                                                                                                                                             365
                                                                                                                                                                                                                                                                                                                                                                                                                               424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             484
                                                                                                                                                                                                                                    245
                                                                                                                                                                                                                                                                                               246 ARRDATKILIVITDGKKEGDSLDYKDVIPMADAAGIIRYAIGVGLAFQNRNSWKELNDIA 305
                                                                                                                                                                                                                                                                                                                                                    364
                                                                         127
                                                                                                                184
                                                                                                                                                                                             244
                                                                                                                                                                                                                                                                        304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIAVCQRIQCDIPFEGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAQCHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RLREGOIQSVVTYDLALDSGRPHSRAVFNETKNSTRROTQVLGLTQTCETLKLQLPNCIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FSFPGLKSLLVGSNLELNAEVMVMNDGEDSYGTTITFSHPAGLSYRYVAEGQKQGQLRSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ENNMPRINKTEFOLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNC
                                                                                                                                                                                                                 365 LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QTRGGOVSVCPLPRGQRARWQCDAVLYGBQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                 LFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSK
                                                                                                                                      ARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIA
                                                                                                                                                                                                                                                                                                                                                      SKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGP
                                                                                                                                                                                                                                                                                                                                                                          425 RYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE
LLLFTALATSLGFNLDTEELTAFRVDSAGFGDSVVQYANSWVVVGAPQKITAANQTGGLY
                                                                                                                                                                                             TLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       126
                                          65
                                                                                                                    125
                                                                                                                                                          128
                                                                                                                                                                                                 185
                                                                                                                                                                                                                                                                                                                                                          305
                                                                                                                                                                                                                                                                                                                                                                                               306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                      ઠે
                                                                         g
                                                                                                                    ò
                                                                                                                                                용
                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                  용
                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                 1140
                      LGGRSLPISLVFLVPVRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPV 1020
                                                                                                                          1020 VNCSIAVCQRIQCDIPFFEGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF 1079
                                                                                                                                                                                                       1080 TLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFRRQYKD 1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VNCSIAVCORIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVF
                                                                                                                                                                                 TLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: Armaout, M. Amin
TITLE OF INVENTION: CONTROLLING CELLULAR IMMUNE/INFLAMMATORY
TITLE OF INVENTION: CONTROLLING CELLULAR IMMUNE/INFLAMMATORY
TITLE OF INVENTION: 53
CORRESPONDENCES: 53
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.;
STREET: 225 Franklin Street
CITY: Boston
STATE: MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 58.8%; Score 3503; DB 2; Length 1
Best Local Similarity 61.3%; Pred. No. 4.2e-287;
Matches 700; Conservative 138; Mismatches 297; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM Compatible
OPERATING SYSTEM: Windows95
SOFTWARE: FESTSED for Windows Version 2.0
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               00786/068003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PAPLICATION NUMBER: US/08/476,062A
PPLICATION NUMBER: US/08/476,062A
PRIOR DATE: 07-JUN-1995
RIOR DATE: 07-JUN-1995
PILING DATE: 21-MAR-1994
APPLICATION NUMBER: 07/637,830
FILING DATE: 18-JUN-1990
APPLICATION NUMBER: 07/539,842
FILING DATE: 18-JUN-1990
APPLICATION NUMBER: 07/212,573
FILING DATE: 28-JUN-1998
ATTORNEY/AGENT INFORMATION:
NAME: Freeman, John W.
REGISTRATION NUMBER: 29,066
REFERENCE/DOCKET NUMBER: 29,066
REFERENCE/DOCKET NUMBER: 29,066
REFERENCE/DOCKET NUMBER: 29,066
REFERENCE/DOCKET NUMBER: 29,066
REFERENCE/JOCKET NUMBER: 2
                                                                                                                                                                                                                                                                                                                                                                RESULT 13
US-08-476-062A-44
. Sequence 44, Application US/08476062A
. Patent No. 5877275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1163 amino acida
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MMSEGGPPGAEPQ 115
                                                                                                                                                                                                                                                                                           MMSEGGPPGAEPQ 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: US
ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-476-062A-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH:
                                                                                                                                                                                                                                                                  1141
                                                                                                         1021
                                                                                                                                                                                     1081
```

ò

ઠે 요

```
1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1084 PGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMS 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  845 HLTCDSAPVG--SQGTWSTSCRINHLIFRGGAQITFLATFDVSPKAVLGDRLLLTANVSS 902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            962
                  365
                                               424
                                                                             425
                                                                                                             484
                                                                                                                                         485
                                                                                                                                                                            544
                                                                                                                                                                                                           544
                                                                                                                                                                                                                                         604
                                                                                                                                                                                                                                                                      604
                                                                                                                                                                                                                                                                                                      664
                                                                                                                                                                                                                                                                                                                                     664
                                                                                                                                                                                                                                                                                                                                                                   724
                                                                                                                                                                                                                                                                                                                                                                                                   724
                                                                                                                                                                                                                                                                                                                                                                                                                                  784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 904
                                                                                                                                                                                                                                                                                                                                                                                                                                    DPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIAGCLRFRCDVPSFSVQEELDFTLKGNLSFGWVRQILQKKVSVVSVAEITFDTSVYSQL
366 VLGAVGSFTWSGGAPLYPPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVQSLVLGAP
                                                                                                                             GAQGHULLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRD
                                                                                                                                                                                                                                                                                                                        RLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIE
                                                                                                                                                                                                                                                                                                                                                                                         FSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             903 ENNTPRISKTIFQLELPVKYAVYIVVSSHEQFIKYLNFSESEEKESHVAMHRYOVNNLGO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          964 RSLPISLVFLVPVRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLL
                                               LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAP
                                                                                                             RYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE
                                                                                                                                                                          QTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                         GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ENNMPRINKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 4, Application US/08173497

Patent No. 5437958

GENERAL INFORMATION:

APPLICANT: Gallatin, W. Michael

APPLICANT: Van Der Vieren, Monica

TITLE OF INVENTION: No. 5437958el Human 2 Integrin

TITLE OF INVENTION: Subunit

NUMBER OF SEQUENCES: 29

CORRESPONDENCE ADDRESS:

ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & B

STREET: 233 S. Wacker Drive, 6300 Sears Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1144 E 1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   E 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-173-497-4
                                                                                                                                                                                                                                                                      545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1143
                  306
                                                                                                             425
                                                                                                                                                                            485
                                                                                                                                                                                                         486
                                                                                                                                                                                                                                         545
                                                                                                                                                                                                                                                                                                        605
                                                                                                                                                                                                                                                                                                                                     605
                                                                                                                                                                                                                                                                                                                                                                     665
                                                                                                                                                                                                                                                                                                                                                                                                                                    725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           963
                                                                            용
                                                                                                                                     ద
                                                                                                                                                                          ઠે
                                                                                                                                                                                                    g
                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                               음
                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                              ઠે
                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TQFSLMQFSNKFQTHFTFEEFRRTSNPLSLLASVHQLQGFTYTATAIQNVVHRLFHASYG 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QCDYSTGSCEPIRLQVPVEAVMMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCF 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | TLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNG 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSK 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ARKNAFKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIA 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGP 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       68 QCGYSTGACEPIGLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5 VLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                       Sequence 44, Application PC/TUS9601314
GENERAL INFORMATION:
APPLICANT: M. Amin Arnaout
TITLE OF INVENTION: METHODS FOR IDENTIFYING INTEGRIN
TITLE OF INVENTION: ANTAGONISTS
NUMBER OF SEQUENCES: 78
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 58.8%; Score 3503; DB 5; Best Local Similarity 61.3%; Pred. No. 4.2e-287; Matches 700; Conservative 138; Mismatches 297;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: John W. Freeman
REGISTRATION NUMBER: 29,066
REFERENCE/DOCKET NUMBER: 00786/267001
TELECOMUNICATION INFORMATION:
TELEPHONE: (617) 542-5070
                                                                                                                                                                                                                                                                                                                   ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
COMPUTER: IBM PS/2 Model 50Z or 55SX
OPERATING SYSTEM: MS-DOS (Version 5.0)
SOFTWARE: WordPerfect (Version 5.1)
                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US96/01314
FILING DATE: 30-JAN-96
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/380,167
FILING DATE: 30-JAN-95
ATORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (617) 542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                     CITY: Boston
STATE: Massachusetts
COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            amino acid
                  1144 E 1144
                                              Ė 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; TOPOLOGY:
PCT-US96-01314-44
                                                                                                             PCT-US96-01314-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   125
                                               1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              305
```

g ठ

ઠે g ò

8 % B

ò

```
E 1143
                                                                                                                                                                                                                                                                                                                                                                                           1144 E 1144
                                                                                                                                                                                                                                                                                                                            1023
                                                                                                                                                                                                                                                                                                                                                                                                               1143
                                                                                                                                                                                                                                                                                                                                                 1084
                                                                                                              725
                                                                                                                                   785
                                                                                                                                                                                                                                                               964
        605
                                                                                         725
                                                                                                                                                                                               g
                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                     g
                                                                                                                                                                           ò
                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                         ò
                          요
                                                 ò
                                                                                         ò
                                                                                                             셤
                                                                                                                                   ઠે
                                                                                                                                                                                                                    ઠે
                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                544
                                                                                                                                                                                                                                                                                                                                                                                                                          127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ARKNAPKILVVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIA 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               484
                                                                                                                                                                                                                                                                                                                                                                                                     QCDYSTGSCEPIRLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCF 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                LFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSK 184
                                                                                                                                                                                                                                                                                                                                                                                67
                                                                                                                                                                                                                                                                                                                                                               64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE
                                                                                                                                                                                                                                                                                                                                                                                                                                                              LLGPT--QLTQRLPVSRQECPRQEQDIVFLIDGSGSISSRNFATWMNFVRAVISQFQRPS
                                                                                                                                                                                                                                                                                                                                                              5 VLLLTALTLCHGFNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQBIVAANQRGSLY
                                                                                                                                                                                                                                                                                                                                                                          TLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAP
                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                          . 9
                                                                                                                                                                                                                                                                                                                    Length 1163;
                                                                                                                                                                                                                                                                                                                                         Indels
                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERTING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                 Score 3480; DB 1; 1
Pred. No. 3.7e-285;
144; Mismatches 294;
                                                                                                                                   ATTORNEY/AGENT INFORMATION:
NAME: No. 5437958and, Greta E.
REGISTRATION NUMBER: 35,302
REFERNCE/DOCKET NUMBER: 27866/31363
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-474-6300
                                                                                                      US/08/173,497
                                                                                                                                                                                                                                                                                                                     58.4%
                                                                                                                                                                                                                                             1163 amino acid
                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 61.19
Matches 697; Conservative
                                                                                                                                                                                                  TELEAX: 312-474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                SS: single
linear
                                                                                                                                                                                                 312-474-0448
                                                                                                                                                                                                                                                                                     MOLECULE TYPE: protein
                                                                                                                FILING DATE:
CLASSIFICATION: 435
                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                                         LENGTH: 1165 TWDE: amino acid
Chicago
Illinois
                                                                                                                                                                                                                                                                 STRANDEDNESS:
                      USA
                                                                                                                                                                                                                                                                                                 US-08-173-497-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              305
                                                                                                                                                                                                                                                                                                                                                                                                         65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

```
1023
                                                                                                                                                                                                                                                                                                                             902
                                                                                                                                                                                                                                                                                                                                                                 963
                                                                                                                                                                                                                                                                                                                                                                                                     962
                                                                                                                                                                                                                                                                                           904
                                                                                                                                                                                                                    844
                                                                                                                                                                                                                                                       844
                                                                                                                                                                              784
                                  664
                                                                      724
                                                                                                      724
                                                                                                                                          784
                                                                                                                                                               GAOGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRD
                                                                                                                                                                                                                                                   785 FSFPGLKSLLVGSNLELNAEVMVMNDGEDSYGTTITFSHPAGLSYRYVAEGQKQGQLRSL
                                                                                                                                                                                                                                                                                           845 RLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTS
                                                                                                                                                                                                                                                                                                                                                                 ENNMPRINKTEFOLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQ
                                                                                                                                                                                                                                                                                                                                                                                        903 ENNIPRISKIIFQLELPVKYAVYIVVSSHEQFIKYLNFSESEEKESHVAMHRYQVNNLGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                       RSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1024 SIAVCORIQCDIPFFGIOEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    665 RLREGOIQSVVTYDLALDSGRPHSRAVFNETKNSTRROTQVLGLTQTCETLKLQLPNCIE
                                                                                           DPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSIT
                                                                                                                                                                                                                    PSFMSLDCLVVGGPREPNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW
```

Search completed: November 25, 2003, 14:23:09 Job time : 17.7527 secs

30 496.5 8.4 1146 2 S40311 integrin - fruit f 31 496 8.4 1039 2 R34269 integrin alpha-2b 32 491 8.4 1137 2 UCS950 integrin alpha-7 c 33 490 8.3 1135 2 161186 alpha-7 integrin alpha-7 c 34 487.5 8.3 1037 2 A60163 alpha-7 integrin alpha-7 integrin 106 8.0 1106 2 S38783 respectively. Integrin alpha cha 126 7.9 1226 2 S44824 respectively. Integrin alpha cha 126 7.9 1226 2 S44824 respectively. Integrin alpha cha 128 7.6 1139 2 S26277 respectively. Integrin alpha cha 128 7.0 1115 2 T09403 respectively. Integrin alpha cha 128 7.0 1115 2 T09403 respectively. Integrin alpha cha 128 309 5.3 1086 2 T18523 alpha cha 1289 5.1 604 2 136916 respectively. Integrin alpha cha 1299 5.1 604 2 136917 respectively. Integrin alpha-1 respectively.	ALIGNMENTS  RESULT 1  RESULT 1  RESULT 1  RESULT 1  RESULT 1  RESULT 1  RESULT 1  RESULT 1  RESULT 1  RESULT 1  RESULT 1  RESULT 1	ocall surface glycoprotean CD1D precursor (Validated) - numan N.Alternate names: complement receptor type 3 alpha chain; leukocyte adhesion protein eukocyte integrin alpha chain; neutrophil adherence receptor alphaM chain clybecies: Homo sapiens (man) C;pecies: Homo sapiens (man) C;Date: 31-Dec-1992 #sequence revision 31-Dec-1992 #text change 31-Dec-200 C;Accession: A31108; A28915; A41600; A30892; A32218; A46526; A26091; I52567 R;Corbi, Ab.,; Kinhimoco, T.K.; Miller, L.J.; Springer, T.A. J. Biol. Chem. 263, 12403-12411, 1988 A;Title: The human leukocyte adhesion glycoprotein Mac-1 (complement receptor type 3, A:Reference number: A31108; WUID:88315033; PMID:2457584	A.Molecule type: mRNA A.Molecule type: mRNA A.Molecule type: mRNA A.Residues: 1-1153 < CORS A.Gross-references: GB:003925; NID:9187284; PIDN:AAA59544.1; PID:9307148 A;Note: part of this sequence was confirmed by protein sequencing B;Arnaout, M. A.; Gupta, S.K.; Pierce, M.W.; Tenen, D.G. J. Cell Biol. 106, 2153-2158, 1988 A.Title: Amino acid sequence of the alpha subunit of human leukocyte adhesion recepton A;Reference number: A28915; MUD:88257215; PMID:2454931	A; Roblecture Cype: mana A; Residues: 1-499,501-965,'P',967-1153 <arn> A; Residues: 1-499,501-965,'P',967-1153 <arn> A; Residues: 1-499,501-965,'P',967-1153 <arn> A; Cross-references: GB:M18044; GB:J03270; GB:M19664; GB:X07421; NID:g186935; PIDN:AAA: A; Note: the authors translated the codon TAC for residue 1129 as Thr A; Note: part of this sequence, including the amino end of the mature protein, was conf. R; Shelley, C.S.; Arnaout, M.A. Proc. Natl. Acad. Sci. U.S.A. 88, 10525-10529, 1991 A; Title: The promoter of the CD11b gene directs myeloid-specific and developmentally: A; Reference number: A41600; MUID:92073318; PMID:1683702</arn></arn></arn>	A Molecule type: DNA A; Molecule type: DNA A; Residues: 1-9 <shes. 1988="" 2776-2780,="" 85,="" a30892="" a94193;="" a;="" acad.="" accession:="" adhe="" alpha-subunit="" and="" arnaout,="" cloning="" cross.references:="" d.g.="" e.;="" gb:m76724;="" guinea="" harris,="" human="" leukocyte="" m.a.;="" m.w.;="" molecular="" molecule="" mrna<="" muid:88190151;="" natl.="" nid:g180018;="" number:="" of="" p.;="" pid:g553215="" pidn:aaa58410.1;="" pierce,="" pig="" pmid:2833753="" proc.="" r;="" reference="" remold-o'donnell,="" sci.="" tenen,="" th="" the="" title:="" type:="" u.s.a.=""><th>A, Residues: 917-1042 <ar2> A, Residues: 917-1042 <ar2> A, Cross-references: GS M18044 A, Cross-references: GS M18044 R, Hicketein, D.D.; Hickey, M.J.; Ozols, J.; Baker, D.M.; Back, A.L.; Roth, G.J. Proc. Natl. Acad. Sci. U.S.A. 86, 257-261, 1989 A, Title: cDNA sequence for the alphaM subunit of the human neutrophil adherence recept A, Reference number: A32218; MUID:8909893; PMID:2563162 A, Accession: A32218 A; Molecule type: mRNA A, Residues: 9-1153 <hic> A, Residues: 9-1153 <hic> A, Cross-references: GB:J04145; NID:g189068; PIDN:AAA59903:1; PID:g386975</hic></hic></ar2></ar2></th></shes.>	A, Residues: 917-1042 <ar2> A, Residues: 917-1042 <ar2> A, Cross-references: GS M18044 A, Cross-references: GS M18044 R, Hicketein, D.D.; Hickey, M.J.; Ozols, J.; Baker, D.M.; Back, A.L.; Roth, G.J. Proc. Natl. Acad. Sci. U.S.A. 86, 257-261, 1989 A, Title: cDNA sequence for the alphaM subunit of the human neutrophil adherence recept A, Reference number: A32218; MUID:8909893; PMID:2563162 A, Accession: A32218 A; Molecule type: mRNA A, Residues: 9-1153 <hic> A, Residues: 9-1153 <hic> A, Cross-references: GB:J04145; NID:g189068; PIDN:AAA59903:1; PID:g386975</hic></hic></ar2></ar2>
	esidues parameters: 283308		edicted by chance to have a ore of the result being printed, al score distribution.  ES  Description	leukocyte surface leukocyte surface cell surface glyco cell surface glyco lymphocyte fuction integrin alpha-E c integrin alpha-1 c integrin alpha-2 s VLA-2 protein Alpha-2 c	alpha-1 te-Peyer' alpha-4 alpha-9 alpha ch ntegrin - face glyc	integrin alpha-V c integrin alpha-V c integrin alpha-6 c fibronectin recept integrin alpha-6 c integrin alpha-5 c integrin alpha-3 c integrin alpha-3 c integrin alpha-8 c position-specific
Core version 1993 - 2003 ng sw model 3, 14:12:29; ARGFGQ	8682 r hosen	summa summa	to the fruit to the sum sum	KWHU1B RWHU1B SO0551 SO3308 156126 A53213 A45226 A45226 A33998	A35854 A41131 S06046 T38409 U731437 U73594 A35761 ISS534 S44250	A36108 T10050 A370457 A270457 B36429 A27421 A41543 S16516 A29637
it ( 15, 15,	seqs, 961 tisfying 0	20000000 um-Match um Match ig first 11:* 11:* 22:*	ູ່ຊະ <b>ຍ</b> ດ :	1153 1 1163 2 1163 2 1179 2 1179 2 1178 2 1178 2		1034 2 1044 2 1049 2 1048 2 1048 2 1051 2 1091 2 1394 2
Copyright protein search November 25 US-09-902-4 1 FNLDTENAM 1 FNLDTENAM 1 BLOSUM62 Gapop 10.0	283308 E hits sa length:	leng : Mi Li Li 1: 2: 3:	sater erive Que Mat	75. 75. 26. 26. 19. 18. 18.	17. 10. 10. 10. 10. 9.	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
table re	d: umber of DB seq	DB seq ocessing	and is soor			551.5 5339 5339 5315 531 5230 524.5 514.5 49.5
OM prote Run on: Title: Perfect Sequence	Searched Total nu Minimum Maximum	Maxımum Post-pr Databas	Result No	1 2 8 4 3 9 7 1 1 0 0 0 1 0 0 0 1 0 0 0 0 0 0 0 0 0	11 12 14 14 14 14 14 14 14 14 14 14 14 14 14	20 21 22 24 24 26 26 26 27 28

integrin - fruit f	integrin alpha-2b	integrin alpha-7 c	alpha-7 integrin -	glycoprotein IIb -	leukocyte adhesion	integrin alpha cha	F54F2.1 protein -	integrin alpha v c	hypothetical prote	integrin alpha cha	integrin alpha cha	glycoprotein IIb -	integrin alpha cha	glycoprotein IIb -	integrin alpha-1 -
S40311	A34269	JCS950	161186	A60163	B30892	S38783	844824	S60571	S28277	T09403	T09433	136916	T18523	136917	A55348
~	7	~	~	N	~	~	~	~	~	N	N	N	~	7	7
1146	1039	1137	1135	1037	126	1106	1226	1045	1139	1115	1115	764	1086	604	272
8.4	8.4	8.4	8.3	8.3	8.3	9.0	7.9	7.8	7.6	7.1	7.0	6.7	5.3	5.1	4.8
496.5	496	491	490	487.5	486	470	466	458.5	444.5	418	413.5	391	309	299	279.5
2	31	32	33	34	35	36	37	38	33	<b>0</b>	4	2	e t	4	5

## ALIGNMENTS

 RESULT 1 RWHUIB cell surface glycoprotein CD11b precursor (validated) - human NiAlternate names: complement receptor type 3 alpha chain; leukocyte adhesion protein eukocyte integrin alpha chain; neutrophil adherence receptor alphaM chain C;Species: Momo sapiens (man)
 C;Date: 31-Dec-1992 #sequence_revision 31-Dec-1992 #text_change 31-Dec-2000 C;Accession: A31108; A28915; A41500; A30892; A32218; A46526; A26091; I52567 R;Corbi, A.L.; Kishimoto, T.K.; Miller, L.J.; Springer, T.A. T Riol Chem 263 12403-12411 1988
 A,Title: The human leukocyte adhesion glycoprotein Mac-1 (complement receptor type 3, p
 A)Reference number: A31108; MUID:88315033; PMID:2457584
 A; Molecule type: mRNA
 A;Cross-references: GB:J03925, NID:g187284, PIDN:AAA59544.1; PID:g307148
 A;WOCE: part of this sequence was confirmed by protein sequencing R;Arnaout, M.A.; Gupta, S.K.; Pierce, M.W.; Tenen, D.G.
J. Cell Bloi. 106, 2153-2158, 1988 A;Title: Amino acid sequence of the alpha subunit of human leukocyte adhesion recepto:
A;Reference number: A28915; MUID:88257215; PMID:2454931
A;Accession: A28915 A;Molecule type: mRNA
 A; Residues: 1-499,501-965,'P', 967-1153 <arn></arn>
 A;Cross-recerences: GB:MIBU44; GB:JU32/U; GB:MIY064; GB:AU7421; NID:g186935; FIUN:AAA: A;Note: the authors translated the codon TAC for residue 1129 as Thr
 A, Note: part of this sequence, including the amino end of the mature protein, was con-
R;Shelley, C.S.; Arnaout, M.A. Proc. Natl. Acad. Sci. U.S.A. 88, 10525-10529, 1991
 A, Title: The promoter of the CD11b gene directs myeloid-specific and developmentally :
 A; Keterence number: A41600; MUID:92073318; PMID:1683702 A:Accession: A41600
 A; Molecule type: DNA
 A; Cross_treferences: GB: N76724; NID: al80018; PIDN: AAA58410.1; PID: a553215
 R; Arnaout, M.A.; Remold-O'Donnell, E.; Pierce, M.W.; Harris, P.; Tenen, D.G.
 Proc. Natl. Acad. Sci. U.S.A. 85, 2776-2780, 1988
 A.Title: Molecular cloning of the alpha-subunit of human and guinea pig leukocyte adhe a. Deference numbar. 20110: MITD.88190151. PMRTD.593753
Approximate includent systyly, word of the colling as a systyly and systyly an

Tue

```
chain reveals homology with the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9/9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                   556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             099
            360
                                                                                                                         420
                                                                                                                                                                               436
                                                                                                                                                                                                                                                                                                496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               leukocyte surface glycoprotein Mac-1 alpha chain precursor - mouse N;Alternate names: complement-3 receptor alpha chain C;Species: Mus musculus (house mouse) C;Species: Mus musculus (house mouse) C;Date: 30-Sep-1989 #sequence_revision 30-Sep-1991 #text_change 22-Oct-1999 C;Accession: S00551; I59078 R;Pytela, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTABILLFNDSVFTLLPGQGAFVRSQTET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   857 SGALKSISCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVISENNMPRINKIEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     917 QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   841 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
            NFEALKTVQNQLREKI FA I EGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                       GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                               ONTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                             PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                               PRGORARWOCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Accession: S00551
A; Molecule type: DNA
A; Residues: 1-1153 <PVT>
A; Cross-references: EMBL: X07640; NID: 952982; PIDN: CAA30479.1; PID: 952983
A; Note: the authors translated the codon CAC for residue 569 as Gln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBO J. 7, 1371-1378, 1988
A;Title: Amino acid sequence of the murine Mac-1 alpha c
A;Reference number: S00551; MUID:88312584; PMID:3044779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                         437
                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901
                  301
                                                                                                                               361
                                                                                                                                                                                        377
                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                               용
                                                                                                             ઠે
                                                                                                                                                                            g
                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                   ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
A; Note: part of this sequence was confirmed by protein sequencing
A; Fleming, J.C.; Pahl, H.L.; Gonzalez, D.A.; Smith, T.F.; Tenen, D.G.
J. Immunol. 150, 480-490, 1993
A; Fleming, J.C.; Pahl, H.L.; Gonzalez, D.A.; Smith, T.F.; Tenen, D.G.
J. Immunol. 150, 480-490, 1993
A; Title: Structural analysis of the CD11b gene and phylogenetic analysis of the alpha-in nduring evolution
A; Reference number: A46526; MUID:93123748; PMID:8419480
A; Accession: A6526
A; Status; not compared with conceptual translation
A; Reference number: A465227; MUID:93123748; PMID:8419480
A; Cross = references: GB:85227; MUID:94047; PMID:A824821.1; PID:9263049
A; Residues: 1-499; 501-1153 *FLE
A; Residues: 1-499; 501-1153 *FLE
A; Residues: GE A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef A; Sef 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A, Conserveferences: GDB:120599; OMIM:120980
A, Map position: 16p11.2-16p11.2
A, Map position: 16p11.2-16p11.2
A, Map position: 16p11.2-16p11.2
A, Map position: 16p11.2-16p11.2
A, Map position: 16p11.2-16p11.2
C, Superfamily: cell surface glychoretin CD11b, von Willebrand factor type A repeat home C, Superfamily: cell surface glychoretin CD11b, where SD COMMAN is signal sequence #status predicted <SIG.
F;1-16-1004/Domain: signal sequence #status predicted <EXT.
F;17-1109/Domain: von Willebrand factor type A repeat homology <VWA2-F;17-1109/Domain: von Willebrand factor type A repeat homology <VWA2-F;18-139/Pomain: von Willebrand factor type A repeat homology <VWA2-F;18-119-1134/Domain: von Willebrand factor type A repeat homology <VWA2-F;19-1109/Pomain: calcium/magnesium binding #status predicted F:593-601/Region: calcium/magnesium binding #status predicted F:51109-1134/Domain: intrancellular #status predicted <INM>F:1135-1153/Domain: intrancellular #status predicted <INT-Fig. Page (Signatus Prodicted <INT-Fig. Page (Signatus Prod
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TDGEKFGDPLGYEDVI PELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 5839; DB 1;
Pred. No. 0;
8; Mismatches 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99.3%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 98.9
Matches 1124; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
```

ò 8 ò 셤 ò g ò q ે us-09-902-481b-3.rpr

```
006
                                                                                                                                                                                               916
                                                                                                                                                                                                                                                                                               1020
                                                                                                                                                                                                                                                                                                                                  1036
                                                                                                                                                                                                                                                                                                                                                                   1080
                                                                                                                                                                                          g
                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                              요
                                                       a
                                                                                                                             셤
                                                                                                                                                          ઠ
                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                뭐
                                                                                              ઠ
R.Sastre, L.; Roman, J.M.; Teplow, D.B.; Dreyer, W.J.; Gee, C.E.; Larson, R.S.; Roberts, Proc. Natl. Acad. Sci. U.S.A. 83, 5644-5648, 1986
A.Title: A.partial genomic DNA clone for the alpha subunit of the mouse complement recep A;Reference number: 159078; MUID:86287312; PMID:2942940
                                                                                                                                                                                                                                                  #status experimenta]
                                                                                                                                                                                                 A repeat
                                                                                                                                                                                                                                                                                                                                                   7
                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PLQVPPEAVNMSLGLSLAVSTVPQQLLACGPTVHQNCKENTYVNGLCYLFGSNLLRPPQQ 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN 300
                                                                                                                                                                                                                                                                                                                                                                                                                94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   surface glycoprotein CD11b; von Willebrand factor type lesion; glycoprotein; transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FPEALRECPQOESDIVFLIDGSGSINNIDFQKMKEFVSTVMEQFKKSKTLFSLMQYSDEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ENFGTWEPHTSIKGSQIG$YFGASLCSVDMDADGNTNLILIGAPHYYEKTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YGASIASLSASHSHRIIGAHFSPGLQYFGQSLSGGKDLTMDGLMDLAVGAQGHLLLLRAQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VDLALDPVRSTIRAFFDETKNNTRRRTQVFGLMQKCETLKLILPDCVDDSVSPIILRLNY
                                                                                                                                                                                                                                                                                                                                                                                                  RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NFEALKTVQNQLREKIFA EGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAFLYTSKDKVTFINTTRVDSDMNDAYLGYASAVILRNRVQSLVLGAPRYQHIGLVVMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                   RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PPEALRGCPQEDSDIAFLIDGSGS11PHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRG-RARWQCEALLHGDQGHPWGRFGAALTVLGDVNGDKLTDVAIGAPGEQENQGAVYIF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                        A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 11-44 «RES>
A;Cross-references: GB:M14293; NID:g198993; PIDN:AAA39484.1; PID:g554193
C;Genetics:
                                                                                                                                                                        AjGene: Mac-1
C;Superfamily: cell surface glycoprotein CD11b; von Willebrand factor C;Superfamily: cell adhesion; glycoprotein; transmembrane protein C;Keywords: cell adhesion; glycoprotein; transmembrane protein F;1-16/Domain: signal sequence #status predicted <SIG>F;1-1153/Product: leukocyte surface glycoprotein Mac-1 alpha chain #sF;148-318/Domain: von Willebrand factor type A repeat homology <VWA2>F;1106-1129/Domain: transmembrane #status predicted <TMM>
                                                                                                                                                                                                                                                                                                                                                 7
                                                                                                                                                                                                                                                                                                              Query Match 75.6%; Score 4447; DB 2; Length 1 Best Local Similarity 73.5%; Pred. No. 2.1e-302; Matches 836; Conservative 147; Mismatches 153; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                  11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9 d 6
                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               상
유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ⋧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
```

```
C;Genetics:
A,Gene: GDB:ITGAX; CD11.2
A,Gene: GDB:ITGAX; CD11.2
A,Gene: GDB:ITGAX; CD11.2
A,Map position: l6p11.2-16p11.2
C;Superfamily: cell surface glycoprotein CD11b; von Willebrand factor type A repeat hc C;Superfamily: cell auflesion; glycoprotein, heterodimer; magnesium; tandem repea F;1-19/Domain: signal sequence #status predicted <SIG>
F;20-1103/product: cell surface glycoprotein CD11c #status predicted <MAT>
F;20-1103/promain: extracellular #status predicted <EXT>
F;149-319/Domain: von Willebrand factor type A repeat homology <VWA4>
F:1108-1133/Domain: transmembrane #status predicted <TWM>
F:1108-1133/Domain: intracellular #status predicted <INT>
F:11184-1163/Domain: intracellular #status gredicted <INT>
F:1134-1163/Domain: intracellular #status gredicted <INT>
F:16,89,392,697,735,899,939,1050/Binding site: carbohydrate (Asn) (covalent) #status F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a leukocy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the leukocyte p150,95 molecul
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A,Accession: S00864
A;Molecule type: mRNA
A,Residues: 1-755,'L',757-1163 <CO3>
A,Residues: 1-755,'L',757-1163 <CO3>
A,CO3>
A,CO8S-references: GB:M81695; EMBL:Y00093; NID:g487829; PIDN:AAA59180.1; PID:g487830
A,Note: part of this sequence was confirmed by protein sequencing
C,Comment: A common beta chain (CD18) forms a heterodimer with CD11b to form Mac-1 on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-1163 <COR>
A;NOte: this revision to the sequence from reference A35543 includes the carboxyl of
B;Corbi, A.L.; Garcia-Aquilar, J.; Springer, T.A.
J. Biol. Chem. 265, 2782-2788, 1990
A;Title: Genomic structure of an integrin alpha subunit, the leukocyte p150,95 mol.
A;Reference number: A35543
A;Molecule type: DNA
A;Residues: 1-834 <CO2>
A;Note: this sequence has been revised in reference A36584
R;Corbi, A.L.; Miller, L.J.; O'Connor, K.; Larson, R.S.; Springer, T.A.
EMBO J. 6, 4023-4028, 1987
A;Title: CDNA cloning and complete primary structure of the alpha subunit of a leu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1095
                                                                                                                                                                                                                                                                                                                                                                                                                                              1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                          959
                                                                                                                                                                                                                                                                                                                                                                    975
839
                                                                 855
                                                                                                                                               899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1096 TKVEPYEVHNPVPLIVGSSIGGLVLLALITAGLYKLGFFKRQYKDMMRAAPQDAPPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cell surface glycoprotein CDIIc precursor - human
N;Alternate names: leukocyte adhesion receptor p150,95 alpha chain
C;Species: Homo sapiens (man)
C;Date: 31-Dec-1992 #sequence revision 31-Dec-1992 #text_change 22-Jun-1999
C;Accession: A36584; A35543; S00864
R;Corbi, A.L.; Garcia-Aguilar, J.; Springer, T.A.
J. Biol. Chem. 265, 12750-12751, 1990
A;Reference number: A36584
A;Contents: erratum
A;Accession: A36584
                                                                                                                                                                                  840 VSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTE
                                                                                                                                                                                                                                                                                                                                                                                                                                              VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                              FOLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
```

```
1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960 VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                        137
                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                              377
                                                                                                                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                            180
                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                       437
                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                 497
                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                         556
                                                                                                                                                                                                                                                                                                                                                                                                                                                   616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             974
                                                                                   RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                 197
                                                                                                                                                                                                                           258 TDGKKEGDSLDYKDVIPWADAAGIIRYAIGVGLAFQNRNSWKELNDIASKPSQEHIFKVE 317
                                          09
                                                             79
                                                                                              CHFTFEEFRETSNPLSLLASVHQLQGFTYTATAIQNVVHRLFHASYGARRDATKILIVI
                                                                                                                                                                                                                TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                         NFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                    GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                               GAFLYPPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVQSLVLGAPRYQHTGKAVIFT
                                                                                                                                                                                                                                                                                                                                                        PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                           YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SLVGTPLSAFGNLRPVLÅEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   797 SNLELNAEVMVWNDGEDŞYGTTITFSHPAGLSYRYVAEGQKQGQLRSLHLTCDSAPVG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901 QLELPVKYAVYMVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VELNQEAVWMDVEVSHPQNPSLRCSSEKIAPPASDFLAHIQKNPVLDCSIAGCLRFRCDV
                                          1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                       20 FNLDTEELTAFRVDSAGFGDSVVQYANSWVVVGAPQKITAANQTGGLYQCGYSTGACEPI
                                                                                                                                                                      RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                            ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                      Gaps
                      .,
 Length 1163
                     Indels
                      143; Mismatches 296;
 Score 3456; DB 1;
Pred. No. 4.6e-233;
 58.8%;
          al Similarity 60.6
684; Conservative
                                                                                                                                                                                                                                                                              318
                                                                                                                                                                                                                                                                                                                                                                 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     855
                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                   61
                                                                                                                                                                                         198
                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                          498
                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                    557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
Query Match
Best Local S
                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            721
                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     쉽
                                                                                                                                                                                   a
                                                                                                                                                                                                            8 8 8
                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                6 8 6
                                                                                                                                                                                                                                                                                                                                                           8 6 8 6 8 6 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 6 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6 B 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                         ò
                                                            g
                                                                                  δ
                                                                                                 g
                                                                                                                        ઠે
                                                                                                                                             g
                                                                                                                                                               ò
```

```
The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A,Note: sequence extracted from NCBI backbone (NCBIN:130862, NCBIP:130863)
R;Shelley, C.S.; Farokhzad, O.C.; Arnaout, M.A.
Proc. Natl. Acad. Sci. U.S.A. 90, S364-S368, 1993
A;Title: Identification of cell-specific and developmentally regulated nuclear factor: A;Reference number: A47565; MUID:93281759; PMID:8099450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             júross-references: GDB:119757; OMIM:153370
jMap position: 16p11.2-16p11.2
jMap position: 16p11.2-16p11.2
Suberfamily: cell surface glycoprotein CD11b; von Willebrand factor type A repeat hy jReywords: cell surface glycoprotein; plycoprotein; heterodimer; surface antigen; ij.1-25/Domain: signal sequence #status predicted <SIGs.
j.2-5/Domain: signal sequence #status predicted cSIGs.
j.6-1170/Product: leukocyte adhesion glycoprotein LFA-1 alpha chain #status predicter.
j.154-317/Domain: von Willebrand factor type A repeat homology <VWA2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            or CD11a)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Molecule type: DNA
A;Residues: 1.20 < SHES
A;Cross-references: GB:M95609
R;Nueda, A.; Lopez-Cabrera, M.; Vara, A.; Corbi, A.L.
J. Biol. Chem. 268, 19305-19311, 1993
A;Title: Characterization of the CD11a (alphaL, LFA-lalpha) integrin gene promoter.
A;Reference number: A48759; MUID:93374910; PMID:8103515
37,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOGRPGFOECIKG----NVDLVFLFDGSMSLQPDEFQKILDFMKDVMKKLSNTSYQFAAV 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: mRNA
A; Residues: 1-1170 cLaRs
A; Cross-references: EMBL: Y00796; NID: 931421; PIDN: CAA68747.1; PID: 931422
A; Cross-references: EMBL: Y00796; NID: 931421; PIDN: CAA68747.1; PID: 931422
A; Cross-references: EMBL: Y00796; NID: 931421; D.D.
R; Cornwell, R.D.; Gollahon, K.A.; Hickstein, D.D.
Proc. Natl. Acad. Sci. U.S.A. 90, 4221-4225, 1993
A; Title: Description of the leukocyte dunction-associated antigen 1 (LFA-1 A; Title: Description of the leukocyte dunction-associated antigen 1 (LFA-1 A; Molecule type: DNA
A; Molecule type: DNA
A; Residues: 1-20 cCOR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLR---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 FNLDTENAMTFQ--ENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -QQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PVTLR-GSNYTSKYLGMTLATDPTDGSILACDPGLSRTCDQNTYLSGLCYLFRQNLQGPM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cross-references: EMBL:Z22804; NID:g311405; PIDN:CAA80461.1; PID:g311406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 26.1%; Score 1532.5; DB 2; Length 1170; Best Local Similarity .34.2%; Pred. No. 1.7e-98; Matches 401; Conservative 209; Mismatches 463; Indels 101;
                                                                                                                                                            TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                 Gene: GDB:ITGAL; CD11A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: DNA
A; Residues: 1-20 <NUE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                82
                                                           1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       임
                                                                                                                                                                                                                                                  셤
                                                                                                                                           8
```

```
-ERLPSHSD--FLAELRKAPVVNCSIAVCORIOCDIPFFGIQEEFNATLKGNLSFDWYIK 1043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLL 1103
                                                                                                                                                                                                                                                                                                                                                                                                                                                              528
                                                                                                                                                                                                         588
                                                                                                                                                                                                                                                                                                                             773
                                                                                                                                                                                                                                                                                                                                              817
                                                                                                                                                                                                                                                                                                                                                         875
                                                                   354
                                                                                                              IGLVAMFR -- ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQT 470
                                                                                                                                                      489
                                                                                                                                                                                       544
                                                                                                                                                                                                                                                                           707
                                                                                                                                                                                                                                                                                                             757
                                                                                                                                                                                                                                                                                                                                                                                                                                                  TSRVMQHQYQV---SNLGQRSLP-ISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTK- 986
           LERLPDAAEPCLPGALFRCPVV-------FRQEILVQVIGTLELVGEIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRD
                                                                                                                                                GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                  DNICQDDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVS
                                                                                                                                                                                                                                                                                                                                                                               818 TLONORSORSWRLACES - ASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKAS
                                                                                                                                                                                                                                                                                                                                                                                           876 LGNKLLLKANVTSENN--|--MPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASEN
QYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAF
                                                                  295 HVFQANNFBALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVG
                                                                                                    SYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQH
                                                                                                                                                                       RGGOVSVCPLPRGQRARWQCDAV--LYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                           DRLREGOIQSVVTYDLALDSGRPHSRAVFNETKNSTRROTOVLGLTQTCETLKLQLPNCI
                                                                                                                                                                                                                                                                                                             EDPVSPIVLRLNFSL---VGTPLS--AFGN-----LRPVLAEDAQRLFTALFPFEKNCGN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LLALITAALYKLGFFKRQYKDMMSEG-GPPGAEP 1136
                                                                                                                                     413
                                                                                   310
                                                                                                                    370
                                                                                                                                                                                       490
                                                                                                                                                                                                                                                                                                                                                                                                 834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1103
                197
                                                                                                    355
                                                                                                                                                      430
                                                                                                                                                                       471
                                                                                                                                                                                                         529
                                                                                                                                                                                                                                                          602
                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                             708
                                                                                                                                                                                                                                                                                                                             719
                                                                                                                                                                                                                                                                                                                                              758
                                                                                                                                                                                                                                                                                                                                                               774
                                                                                                                                                                                                                                                                                                                                                                                                                                                  932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1104
                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
            셤
                                 ò
                                             g
                                                            8
                                                                                                                                                                                                                                                                      8 6 8
                                                                                                                                                                                                                                                                                                                                         6 B 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

- monse

mojecule-1-alpha

I56126 lymphocyte fuction-associated

RESULT 5

```
A repeat ho
                                                                                                                                                                                                                                                   molecule-1 alpha-subunit
C;Species: Mus musculus (house mouse)
C;Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 20-Aug-1999
C;Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 20-Aug-1999
C;Accession: 186126
B;Kaufmann, Y:, Taeng, E.; Springer, T.A.
J: Immunol. 147, 369-374, 1991
A;Title: Cloning of the murine lymphocyte function-associated molecule-1 alpha-s
A;Accession: 186126
A;Accession: 186126
A;Accession: 186126
A;Gene: Eparts: preliminary; translated from GB/EMBL/DDBJ
A;Residues: 1-1163 A:RES>
A;Cross-references: GB:M60778; NID:g198785; PIDN:AAA39426.1; PID:g198786
C;Genecilcs:
A;Gene: LFA-1
C;Superfamily: cell surface glycoprotein CD11b; von Willebrand factor type A rep
F;151-315/Domain: von Willebrand factor type A repeat homology <VWAl>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            310 KILDTFEKLKDLFTDLQRRIYAIEGTURQDLTSFNMELSSSGISADLSKGHAVVGAVGAX 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60 IRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                : | : | | : | | : | | : | | : | | : | | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          : | : | : | : | : | : | | | | | | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          199 CRIEFTFLDYVKONKNPDVLLGSVOPMFLLTNTFRAINYVVAHVPKEESGARPDATKVLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -QGAVYIFNGKPG-GLSPQPSQRIQGAQVFPGIRWFGRSIHGVKDLGGDRLADVVVGAEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LLTDGEKF - - GDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQHIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       415 LVAMFR--QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HVLLLRSOPVLRVKAIMEFNPREVARNVFECNDOVVKGKEAG-EVRVCLHVQKSTRDRLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 FNLDTENAMTFQENA-RGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24 YNLDTRPTQSFLAQAGRHFGYQVLQIEDG-VVVGAPGE---GDNTGGLYHCRTSSEFCQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180 FRIHFTFKEF-QNNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EGQ1QSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNC1EDPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SPIVLRLNFSLV---GTPLSAFGN-LRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FOANNFEALKTVONOLREKIFALEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |:|
|RVFTY---QRRQSLFEMVSELQGDPGYPLGRFGAAITALTDINGDRLTDVAVGAPLEE-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25.8%; Score 1516.5; DB 2; Length 1163; larity 33.9%; Pred. No. 2.2e-97; Conservative 216; Mismatches 466; Indels 89;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 396; Conservat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     윤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      કે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

Í

Db SSHGSRRKASKVMVVLTDGGIFEDPLNLTTVINSPKMQGVERFAIGVGEEFKSARTAREL 354  285 NTVASKRPRDHVPQANNFEALKTVQNQLREKIFAIEGTGGSSSSFEHEMSQEGFSAAIT 344  Db 355 NLIASDPDETHAFKVINYMALDGLLSKLRYNIISMEGTVGDALHYQLAQIGFSAQIL 411  Qy 345 SNGP-LLSTVGSVDWAGGVELY-TSKEKSTFINMTRVDSDWNDAYLGYAAAIILRN 398  190 RVQSLVLGAPRYQHIGLVAMFR-QNTGMWESNANV-KGTQIGAYFGASLCSVDVDSNGST 456  11	691 GLTQUCCETLKLQLPNCIEDDVSPIVIRINFSLVGTPLSAFGNIRPVLAEDAQRLFT	RESULT 7 44526 integrin alpha-1 chain - human (fragment) C;Species: Homo sapiens (man) C;Species: Homo sapiens (man) C;Date: 30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change 31-Dec-2000 C;Accession: 44526 R;Brissewitz, R.; Epstein, M.R.; Marcantonio, E.E. J. Biol. Chem. 268, 2989-2996, 1993 J. Biol. Chem. 268, 2989-2996, 1993 A;Title: Expression of native and truncated forms of the human integrin alpha 1 subun A;Reference number: A45226; MUID:93155124; PMID:8428973
OY 768 TESEMSLDCLVVOGPREFNUTVITVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQN 821  1	ASSULT 6  ASSULT Assult Assult C;Species: Homo sapiens (man) C;Species: Homo sapiens (man) C;Species: Homo sapiens (man) C;Species: Homo sapiens (man) C;Species: Homo sapiens (man) C;Species: Homo sapiens (man) C;Species: Homo sapiens C;Species: Homo sapiens C;Species: Homo sapiens C;Species: Homo sapiens C;Species: Homo sapiens C;Species: A: Reusell, G.J.; Brenner, M.B.; Parker, C.M. A;Title: Molecular cloning of the human mucosal lymphocyte integrin alpha(E) subunit. Un A;Reference number: A53213; MUID:94164962; PMID:8119947 A;Cross-references: GB:12581; MUID:94164962; PMID:8119947 A;Residues: J.1179 cSha A;Residues: J.1179 cSha A;Residues: J.1179 cSha A;Gene: GB:1708 A;Gene:	Qy 120 KFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQL 164

& f	8 & 8 6	λ a δ			0y Db 1	RESULT 8 145914 integrin a	C;Species: C;Date: 16 C;Accessio R;Kamata,	J. Biol. C A;Title: I A;Referenc A;Accessio	A;Scatus: A;Molecule A;Residues A;Cross-re	F;161-336/	Best Loc Matches Qy	g &	ብ <i>የ</i>	8 &	g &	QQ	<u>8</u>	<i>&amp;</i>
Accession: A45226 Status: preliminary; not compared with conceptual translation	A;Molecule type: mRNA A;Residués: 1-1151 <bri> A;Experimental source: hepatoblastoma cell line HepG2 A;Experimental source: hepatoblastoma cell line HepG2 C;Superfamily: unassigned collagens; von Willebrand factor type A repeat homology F;142-317/Domain: von Willebrand factor type A repeat homology</bri>	Query Match Best Local Similarity 27.6%; Pred. No. 3.1e-67; Matches 342; Conservative 209; Mismatches 488; Indels 201; Gaps 44;	1 FNLDTENAMTFQENARG FGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGS 56	57 CEP-IRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGL 106   :-	107 CFLFGSNLRQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKK 166 120 CSDVSPTFQVVNSIAP- VQECSTQ-LDIVIVLDGSNSIYPWDSVTAFLNDLLKR 171	167SKTLFSLMQYSEËFRIHFTFKEFQNNPNPRSLIKPITQLLGR-THTATGLRKVVR 220 	221 ELFNITNGARKNAFKILFLITDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFR 276	277 -SEKSRQELNTVASKPPRDHVPQANNFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMS 335	336 QEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTF-INWTRVDSDWNDAYLG 389	) 390 YAAAIILRNRVQSL-VLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSV 448 	449 DVDSNGSTDLVLIGAPHYYEQTR-GGQVSVCPLPRGQRARWQCDA 492	493	552	612	669	723 VGTPLSAFGNLRPVLAEDAQRLFTALFPFE	754	808 NDKFNVSLTVKNTKDSAYNTRTIVHYSPNLVFSGIEAIQKDSCESN
444	44400		S 8	8 S	상 원	දු පු	\$ B	පි ර	S &	\$ B	è 8	8 6	\$ A	8 6	중 원	ò	දු ද	d d

è 8	842 GALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGN-KLLLKANVTSENNMPRTNKTEF 900   :   :               : :             : 854HNITCKVGYPFLRRGEMVTFKILFQFNTSYLMENVTIYLSATSDSEEPPETLSDNVV 910
ò 8	901 QLELPUKYAVYWVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRS 949   :         :     :     :       :
ò	LPISLVF LVPVRLNQTVIMDRPQVTFSENLSSTCHTKE 98
qa	970 PELKLSISFPNMTSNGYPVLYPTGLSSSENANCRPHIFEDPFSINSGKK 1018
È	989 LPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEFINA 1030
đ	RGTILDĊ
<u>ک</u> و	1031 TLKGNLSFDWYIKTSHNHLLIVSTABILFNDSVFTLLPGQGAFVRSGTETKVEPFEVPNP 1090 1034
<b>}</b>	L.PIVGSSVGGLILLALITAALVKLGFFKROYKDWMSF 1128
<b>3</b> 8	VPLWVILLSAFAGLLLLMLLILALWKIGFFKRPLKKKMEK
RESUI 1459 inte C; Spe C; Dat	RESULT 8 145914 integrin alpha 2 subunit - bovine (fragment) C;Species: Bos primigenius taurus (cattle) C;Date: 16-Aug-1996 #sequence revision 16-Aug-1996 #text change 20-Sep-1999
C; Ac R; Kai	da, Y.
J. B A;Til A;Rel	Biol. Chem. 269, 9659-9663, 1994 Title: Identification of putative ligand binding sites within the I-domain of integr Reference number: A54402; MUID:94193647; PMID:7511592
A; St.	cession: 145914 atus: preliminary; translated from GB/EMBL/DDBJ lecule type: mRNA
A; Re C; Suj F; 16:	<pre>sidues: 1-1170 <ram> ons-references: GB:L25886; NID:g439695; PIDN:AAB59255.1; PID:g439696 ons-references: GB:L25886; NID:g439695; PIDN:AAB59255.1; PID:g439696 berfamily: unassigned collagens; von Willebrand factor type A repeat homology 1-336/Domain: von Willebrand factor type A repeat homology <vwa2></vwa2></ram></pre>
MBE	Query Match Best Local Similarity 27.5%; Pred. No. 3.3e-66; Matches 334; Conservative 218; Mismatches 495; Indels 168; Gaps 48;
ठे र	1 FNLDTENAMTFQ-ENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYST 54
3 8	SOF SOF ENTRY OF THE NOTH FROM FRANKISTY THE FUEL OF FRANKISTY OF FRAN
. A	
ò	108 FLFGSNLRQQPQKFPBALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLK 165
QQ	139 SDVSPDF-QLRTSFAPAVQTCP-SFIDVVVVCDEŠNSIYPWDAVKNFLEKFVQGLDIG 194
ò	166 KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRE 221
qq	195 PTKTQMGLIQYANNPRVVFNLNTFKSKDEMİKATSQTFQYGGDLTNTFKAIQYARDT 251
ે ક	222 LFNITNGARKNAFKILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFR 276 25. avgraadsgeparkvakvuvnorgest-ngerikavinorkhnitærstavlskyknavnatn 310
3 8	
h 5	2// SEKSKOELNIYASKEPHYKOANNEPALKIYONOLKEATALEGIGGSSSEKEEKSKO 330 
ò	337 EGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMN-DAYLGYA 391

A;Cross-references: EMBL:Z29987; NID:g473098; PIDN:CAA82877.1; PID:g473099 C;Superfamily: unassigned collagens; von Willebrand factor type A repeat homology F;169-344/Domain: von Willebrand factor type A repeat homology <waz> Query Match 18.0%; Score 1057; DB 2; Length 1178; Best Local Similarity 27.8%; Pred. No. 3.2e-65; Matches 341; Conservative 209; Mismatches 487; Indels 188; Gaps 45; Qy I FNLDTENAMTFQ-ENARGFGGSVVQLQGSRVVVGAPQEIVAANORGSLYQCpYST 54</waz>		DD 87 ATCEKLANDQNSASISNVTEIRINMSSUGLIERRANGIGGFEIGGFEIGGFEIGGFEIGGFG 740  QY 108 FLFGSNLRQOPQKPPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQL 164	222	200 AISGURGERINVMOVYIDGESH-DGSALMINTDELLKRIGIANGERINKAMAD 277 SEKSRQELNTVASKPPRDHVFQANNFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQ ::	378 VGFSADYAPQNDILMLGAVGAFDWSGTLVQETSHKPVIFPKQAFDQVLQDRNHSSFLGYS 392 AAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCS	448 VDVDSNGSTDLVLIGAPHYYEOTRGGQVSVCPLPRGQRARWQCDAVLYGEGGQPWGRF	DD 552 GSAIAALSDINMDGFNDVIVGSPVENENSGAVYIYNGHQGT-IRTKYSQKILGSNGAFRR 610  QY 565 -LQYFGQSLSGQQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFEC 623  QD 611 HLQFFGRSLDGYGDLNGDSITDVSIGALGQVIQLMSQSIADVAIEALFF 660  QY 624 NDQVVKGKEAGERVCLHVQKSTRDRLREQQVIQLWSQSIADVAIEALFF 660	DD 661 -DKITLLNKDAKITLKÜCFRAEFRPAGONNÖVAILFNMTLDADGHSSKVTŠRGVFREN 717  QY 680 KNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVL 737  DD 718 SERFLÇKAMVYNEVQKČSEHHISIQKPSDVVNPLDLRVDISLENPGTSPAL 768	738 769 789 848 872 906
VGFSAEYSPONNILMLGAVGAYDWSGTVVQKTPHGHLIFSKQAFEQILQDRNHSSYLGYS 429  AAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASL 445	6 5 6 1	SPRIQYFGOSLSGCOLTMOCLVDLYGAQCHVLLIRSQPVLRVKAIMEFNPREVARNVF 621	733	SITESFMSLDCLVVGGREENVYV 789  LINVQQLPATQQQPFIVSNQNRRLTFSV 816  QRSQRSWRLACESASST-EVSGALKSTS 848	LLKANVTSENNMPRTNKTEFQLELPVKY 908  SISFRALSESQEENWADNSVNLKLSLLY 923	FSIKVTTGSVPVSMA 976RLPSHSDFLAE- 998RLPSHSGYSKSEN 1030	1057 1090 1110 1140		; 20-Sep-1999 [., Damjanovich, i., Latze laminin adhesion but not
Db	504	Oy 562 SPRLQYFGOSLSGGODLT	678 ETKNSTR 708 ENNERCL	OY 734 RPVLABEAGNIFFTALFPEKNCGNDNICQDDL  157 NPALEAYSETVKYFSIFFHKDGDDGVGISDL  OY 790 TVRNDGEDSYRTQVTFFFPLDLSYRKVSTLON  OY 791 TVRNDGEDSYRTGVTFFFPLDLSYRKVSTLON  ON 791 TVRNDGEDSYRTGVTFFFPLDLSYRKVSTLON	849 849 865	924 DAEI 959 PVRL 977	Oy 999 LRKAPUVNCSIAUCORIO  Db 1031 FRHIKELNCRTASCSNIM  OY 1058 LFNDSVFTLLPG  Db 1091 TYNPQIYVIEENTUTP	Oy 1111 ALYKLGFFKROYKDM 11  :	RESULT 9 344142  VLA-2 protein homolog - mouse C;Species: Mus musculus (house mouse) C;Species: Mus musculus (house mouse) C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change C;Accession: 344142 R;Edelman, J.M.; Chan, B.M.; Uniyal, S.; Onodera, H.; Wang, D.2 R;Edelman, J.M.; Chan, B.M.; Uniyal, S.; Onodera, H.; Wang, D.2 R;Edelman, J.M.; Chan, B.M.; Uniyal, S.; Onodera, H.; Wang, D.2 R;Edelman, J.M.; Chan, B.M.; Uniyal, S.; Onodera, H.; Wang, D.2 R;Edelman, J.M.; Chan, B.M.; Uniyal, S.; Onodera, H.; Wang, D.2 A;Reference number: S44142 A;Reference number: S44142 A;Reference number: S44142 A;Reference number: Mala

SS GSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGFTVHQTCSENTYVKGLC 107	225 ITNGARKNAFKILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEK 279  :	SAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMN-DAYLGYAAAI	DVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGPWGRPG    :  :     :      :       :	565 LQYPGQSLSGQQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPEVARNVFECN 624	NSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLA  :	795 GEDGYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASST-EVSGALKSTSCSINH 853	914 VTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLV 958
8 8 8 8 8	8 6 6 6	6666	8 8 8 8	6 6 6	ò a ò a .	8 8 8	868686
Db 929 LLYDAELHLT-RSTNINEYEISSDENAPSVIKSVEDIGPKFIFSLKVTAGSAPVSNA 984  Qy 956 FLV		RESULT 10. A33999 Integrin alpha-2 chain precursor - human N;Alternate names: CD49b; platelet glycoprotein GPIa; VLA-2/collagen receptor alpha-2 ch C;Species; Homo sapiens (man) C;Date: 30-Mar-1990 #sequence revision 18-Sep-1992 #text_change 21-Jul-2000 C;Accession: A33998; B55733; A33117 R;Takada   Y.; Hemler, M.E. J. Cell Biol. 109, 397-407, 1989	A; Title: The primary structure of the VLA-2/collagen receptor alpha(2)-subunit (platelet A; Reference number: A33998; MUID:89308879; PMID:2545729 A; Recession: A33998 A; Molecule type: mRNA A; Residues: 1-1181 -TAK> A; Cross-references: GB:X17033; NID:g33906; PIDN:CAA34894.1; PID:g33907 A; Note: the authors translated the codon GAT for residue 802 as Gln, GTC for residue 803 B; Catimell B; Parmentier, S; Leung, L.L; McGregor, J.L.	Blochem. J. 2/9, 415-425, 1991 Alther. Separation of important new platelet glycoproteins (GPIa, GPIc, GPIc*, GPIIa an A;Reference number. A56793; MUID:92061944; PMID:1953640 A;Recession: B56793 A;Residues: 30-43 < CAT> A;Residues: 30-43 < CAT> A;Residues: 30-43 < CAT> A;Residues: 30-43 Sylver, Painter, A.S.; Tsung, Y.L.; Gafford, A.	J. Biol. Chem. 269, 463-469, 1994 A.Title: The human alpha-2 integrin gene promoter. Identification of positive and negation A;Title: The human alpha-2 integrin gene promoter. Identification of positive and negation A;Reference number: A53117; MUID:94103255; PMID:8276836 A;Accession: A53117 A;Molecule type: DNA A;Residues: 1-16,'V',18-21 <zut> A;Cross-references: GB:L24121; NID:9400342; PIDN:AAA16619.2; PID:94583535 A;Note: authors translated the codon GTA for residue 17 as Leu</zut>	C;Genet108: A;Gene: DB:ITGA2; CD49B A;Gene: CB:ITGA2; CD49B A;Gene: CB:ItGA2; CD49B A;Gene: CB:ItGA2; CD49B A;Map position: 5q11.1-5q11.2 C;Superfamily: unassigned collagens; von Willebrand factor type A repeat homology C;Keywords: cell adhesion; glycoprotein; heterodimer; transmembrane protein F:1-29/Domain: signal sequence #fatatus predicted <skt> F;30-1133/Domain: extracellular #status predicted <skt></skt></skt>	F;172-347/Domain: von Willebrand factor type A repeat homology <vwa2> F;1134-1154/Domain: transmembrane #status predicted <twm> F;1154-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;105,112;343,432,460,475,699;1057;1074;1081/Binding site: carbohydrate (Asn) (covalent)  Query Match  17.94; Score 1054; DB 2; Length 1181; Best Local Similarity 26.84; Pred. No. 5.2e-65; Matches 328; Conservative 215; Mismatches 494; Indels 188; Gaps 44;  Qy</tvm></tvm></twm></vwa2>

	RESULT 12  A41131  Iymphocyte-Peyer's patch adhesion molecule alpha 4 precursor - mouse NiAlternate names: integrin alpha-4 G;Species: ms musculus (house mouse) C;Date: 05-Jun-1992 #equence_revision 05-Jun-1992 #text_change 24-Sep-1999 C;Accesion: A41131; 816742 R;Neuhans, H; Hu, M.C.T; Hemler, M.E.; Takada, Y.; Holzmann, B.; Weissman, I.L. J; Cell Biol. 115, 1149-1158, 1991 A;Title: Cloning and expression of cDNAs for the alpha subunit of the murine lymphocy; A;Accession: A41131; MUID:92064645; PMID:1840602 A;Accession: A41131 A;Status: preliminary A;Molecule type: manAn A;Residues: 1-1039 < NUE) A;Accession: A1131 A;Estatus: preliminary A;Molecule type: manAn A;Residues: 1-1039 < NUE) A;Cross-references: EMBL:X53176; NID:951484; PIDN:CAA37316.1; PID:951485 C;Superfamily: integrin alpha-4 chain C;Keywords: cytoskeleton; transmembrane protein Query Match Best Local Similarity 22.8%; Pred: No. 5.9e-38; Matches 283; Conservative 183; Mismatches 405; Indels 368; Gaps 48; Matches 283; Conservative 183; Mismatches 405; Indels 368; Gaps A1 YNLDPENAMTFQ-ENARGFGQSVV-QLQGSRVVVGAPQBIVAANQRGSLYQCDY 52 C   Db
Oy 1049 LLIVSTAEL-LFNDSVFTLLPQQARVRSQTERKVEPFEVPRPLP-LLVGSSVG 1100  1092 VOLTAAAEINTYNPEIYU	OY 167SKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLG-RTHTATGLKKVWR 220  200 MDIGPKQTQVQIVQYGBNVTHEFNLMKYSSTEEVLVAANKIGRQGGLQTWTALGIDTARK 259  221 ELFNITUGARGNAFKILFLITDGEKFGDPLQYEDVIPELDREGVIRYVLGFGDAF 275  250 BAFTEARGARGVKKVWYVTDGESH-DNYRLKQVIQDCEDRIQRFSIALGHYRRGNL 318  270 RSEKSRGELMTVASKPPRDHVFQANNFALKTVQNQLREKIFALEGTGTGSSSSFEHEMS 335  316 OEGFSAAITSNGPLLSTVGSYDMAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGY 390  316 OEGFSAAITSNGPLLSTVGSYDMAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGY 390  3179 QTGFSAHYSQDWWLGAYDWNGTVVMQTRVMYNPHNTTFOTEFAKOMEPLASYLGY 438  QY 391 AAAIILRNRVQSLVLGAPRYQHTGLVAMVRGNYDPWNTTGTFFAKOMSELLSYLTDI 498  QY 451 DSNGSTDLVLIGAPHYYEOTR-GGQUSYCPLPRGGRARWQCDAVL 494  11

```
A;Cross-references: GB:M62841
R;Takada, Y.; Strominger, J.L.; Hemler, M.E.
Proc. Natl. Acad. Sci. U.S.A. 84, 3239-3243, 1987
A;Titler The very late antigen family of heterodimers is part of a superfamily of mole A;Reference number: A94151; MUID:87204112; PMID:3033641
A;Accession: D28018
                                                                                                                                                                                                                                                                                                                                                           inc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   trans
                                                                                                                                                                                                                                                                                      R.Takada, Y.; Elices, M.J.; Crouse, C.; Hemler, M.E.
EMBO J. 8, 1361-1368, 1989
A.Title: The primary structure of the alpha (4) subunit of VLA-4: homology to other i A; Reference number: S06046; MUID:89356603; PMID:2788572
A;Reference number: S06046
A;Rolecule type: mRNA
A;Residues: 1-1038 -TAK>
A;Cross-references: GB:XI6983; EMBL:XI5356; NID:g33945; PIDN:CAA34852.1; PID:g33946
B;Ross-references: GB:XI6983; FMID:g139513; PMID:2034655
A;Rolecule type: DNA
A;Residues: 1-93 -ROSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A,Cross-references: GDB:128032; OMIM:192975
A;Map position: 2q31-2q32
S,Superfamily: integrin alpha-4 chain
C;Keywords: cell adhesion; cytoskeleton; duplication; glycoprotein; heterodimer; t
F;1-39/Domain: signal sequence #status predicted <SIG>
F;40-1038/Product: integrin VLA-4 alpha-4 chain #status predicted <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       66
                                                                                                                                                                       integrin alpha-4 chain precursor - human
N.Alternate names: CD49d; very late antigen-4 alpha chain; VLA-4 alpha chain
C;Species: Homo sapiens (man)
C;Date: 01-Dec-1989 #sequence revision 01-Dec-1989 #text_change 24-Sep-1999
C;Accession: S06046; A39355; D28018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STG---SCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                170 LFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     230 RKNAFKILFLLTDGEKFGDPLGYEDVIPELDREGVIR-----YVLGFGDAFRSEKSRQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     161 -KNENK----LPTGGCYGVP-----PDLRTELSKRIAPCYQDYVKKFGENFAS----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----COAGISSF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 FNLDTENAMTFQ-ENARGFGQSVV-QLQGSR--VVVGAPQEIVAAN----ORGSLYQCDY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100 GKNPGQTCEQLQLGSP-----NGEP----CG----KTCLEERDNQWL---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ELNTVASKPPRDHVFQANNFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       368;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1038;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
1091 -LPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -----NGSIVTCGHR
                       Local Similarity 23.6%; Pred. No. 2.8e-36; les 293; Conservative 170; Mismatches 408;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10.9%; Score 642; DB 2; 23.6%; Pred. No. 2.8e-36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   157 IFYI------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A,Molecule type: protein
A,Rebidues: 40-50,'E',52-53 <TA2>
C,Genetics:
A,Gene: GDB:ITGA4; CD49D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              134 -GVTLSROPGE-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S:
Matches 293,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         53
                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

par

```
novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -- 1084
                                                                                                                                                                                                                                  40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  810
                                                                                                                                                                                                                                                           389
                                                                                                                                                                                                                                                                                   248
                                                                                                                                                                                                                                                                                                               445
                                                                                                                                                                                                                                                                                                                                      308
                                                                                                                                                                                                                                                                                                                                                                505
                                                                                                                                                                                                                                                                                                                                                                                          364
                                                                                                                                                                                                                                                                                                                                                                                                                     565
                                                                                                                                                                                                                                                                                                                                                                                                                                            423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     897
                                                                Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LPSHSDFLAELRKA------PVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFD
                                                                                                                                                                                                                                                                                                                                                                                                                                    QYFGQSLSGGQDLTMDGLVDLTVGA--QGHVLLLRSQPVLRVKAIMEFNPREVARNVFEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NDQVVKGKEAGEVRV-CLHVQ-----KSTRDRLREGQIQSVVTYDLALDSGRPHSRAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | | | | : | | : | | | : | | | | ELPPLTPVLRWKKGQKIAQKQTV---FERNCRSED-CAADLQLQGKLLLSSMDEKTLYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QVSNLGQRSLPISLVFL-VPVRLN------QTVIWDRPQVTFSENLSSTCHTKER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DFL-----KCSVGFPFMRSKSKYEFSVIFDTSHLS--GEEEVLSFIVTAQSG--NTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ....-FQLELPVKYAVYMVTS------HGVSTKYLNFTASENTS---RVMQHQY
                                                                                                                                                                                                                                                                                                                              GAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AFGNLRPVL----AEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFM--SLD----CL
                    A;Cross-references: GB:D25303; NID:9464180; PIDN:BAA04984.1; F1D:953332.7; R;Palmer, E.L.; Ruegg, C.; Ferrando, R.; Pytela, R.; Sheppard, D. J. Gli Biol. 123, 1289-1297, 1993
A;Title: Sequence and tissue distribution of the integrin alpha9 subunit, A;Title: Sequence and tissue distribution of the integrin alpha9 subunit, A;Reference number: A49459; MUID:94064789; PMID:8245132
A;Accession: A49459; MUID:94064789; PMID:8245132
A;Recession: A94559
A;Residues: preliminary
A;Residues: 30-1033 c.PAL>
A;Cross-references: GB:L24158
C;Superfamily: integrin alpha-4 chain
C;Superfamily: integrin alpha-4 chain
C;Superfamily: signal sequence #status predicted <SIG>
                                                                                                                                                                                                                                                            EHEMSQEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT-RVDSDMNDAYLG
                                                                                                                                                                                                                                                                                                               YA - - AAIILRNRVQSLVLGAPRYQHIGLVAMFR - - QNTGMWESNANVKGTQIGAYFGASL
                                                                                                                                                                                                                                                                                                                                                                  CSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRF
                                                                                                                                                                                                                                                                                                                                                                                 F---NETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSL-
                                                                                                                                                                                                          Length 1035;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1040 WYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEP-
                                                                                                                                                                                                        Score 630; DB 2; L
Pred. No. 1.9e-35;
); Mismatches 332;
10.7%; Sc.
larity 26.5%; Pr.
Conservative 160;
                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 237; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 702
                                                                                                                                                                                                                                                                                                                390
                                                                                                                                                                                                                                                                                                                                          249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       811
                                                                                                                                                                                                                                                                                      190
                                                                                                                                                                                                                                                                                                                                                                                           309
                                                                                                                                                                                                                                                                                                                                                                                                                                               365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     483
                                                                                                                                                                                                                                                                                                                                                                                                                      506
                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              음 중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         පු පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Takan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                small
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                at 3p21.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PFFGIOREFNATLKGNLSFDWYIKTSHNHLLIVSTAE----ILFN-----DSVFT 1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       839
                                                                                                                                                                                                                                                                                                                 740
                                                                                                                                                                                                                                                                                                                                                                                                                        853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          911
                                                                                                      512
                                                                                                                              381
                                                                                                                                                                                  440
                                                                                                                                                                                                            630
                                                                                                                                                                                                                                                             685
                                                                                                                                                                                                                                                                                       552
                                                                                                                                                                                                                                                                                                                                          612
                                                                                                                                                                                                                                                                                                                                                                    793
                                                                                                                                                                                                                                                                                                                                                                                            671
                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      M.; Uchida,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 31-Dec-2000
C;Accession: I58409; A49459
R;Hibi, K.; Yamakawa, K.; Ueda, R.; Horio, Y.; Murata, Y.; Tamari, M.; Uchic Oncogene 9, 611-619, 1894
A;Title: Aberrant upregulation of a novel integrin alpha subunit gene at 3p;A;Reference number: I58409; Mulb:94119603; PMID:8290272
A;Accession: I58409
A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                     :: : | : | : | : | : | : | KEKDIMKKTINFARFCAHEN-CSADLQVSAKIGFLKPHENKTYLAVGSMKTLMLNVSLFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          --SSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TANGEVNPTSFVYGSNDENEPETCMVEKMNLTFHVINTGNSMAPNVSVEIMVPNSFS--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLVGTPLS-----AFGNLRPVLAED
                                                                                                                                                                                                                                                                                                                                                                                                                                        MVVTSHGVSTKYLNFTASENTSRV-----MQHQYQVSNLGQRSLP-ISLVFLVPVRLNQT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----RVCALEO---
 ITSNGPLLSTVGSYDWAGGVFLY---TSKEKSTFINMTRVDSDMNDAYLGYA--AAIILR
                 GDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSL
                                                                                                                                                                      SGGODLTMDGLVDLTVGA - - QGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKG
                                                                                                                                                                                                                                                             KEAGEVRVCLHVQKSTRPRLREGQIQSVVTYDLALDSGR----PHSRAVFNETKNSTRR
                                                                                                                                                                                                                                                                                                                                   741 AQR-LFTALFPFEKNCGNDNICQDDLSIT--FSFM----SLDCLVVGGPREFNVTVTVRN
                                                                                                                                                                                                                                                                                                                                                                                                                        DGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGALKSTSCSINH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSEN--NMPRTNKTEFQLELPVKYAVY
                                                                                                       GSTDLVLIGAPHYYEQTRGGOVSVCPLPRGQRARWQC-DAVLYGEQGQPWGRFGAALTVL
                                                                                                                                                                                                                           -LPLIVGSSVGGLLLLALITAALYKLGFFKROYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TIVIISSSLLLGLIVLLISYVWWKAGFFKRQYKSILQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----PQTDKLFNILDVQTTTGECHFENYQ-----
                                                     NRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LLPGQGAFVRSQTETKVEPFEV-----PNP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     integrin alpha-9 chain precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VIWDRPQVTFSENL - - -
                                                                                                                                                                                                                                      441
                                                                                                                                                                                                                                                                631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1601
                                                                                                                              325
                                                                                                                                                                                                                                                                                                                 989
                                                                                                                                                                                                                                                                                                                                           553
                                                                                                                                                                                                                                                                                                                                                                                               613
                                                                                                                                                                                                                                                                                                                                                                                                                        794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  924
                                                                                                                                                                                                                                                                                         493
                                                                                                                                                          513
                                                                                                       454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                            8 B 8
                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                 ò
                                                                         셤
                                                                                                   8 6
                                                                                                                                                  B &
                                                                                                                                                                                                           9 9
                                                                                                                                                                                                                                                                                                                                                                  ò
```

2.1	38 9 41; 23 9 9 4 4 6 4 6 2 3 9 9 6 6 6 6 3 8 6 7 7 5 3 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
EIAHGNPEEV DNM 1126 :: :1: 1015 21-Jan-2000 ain.	45; GapsDMNDAYLG :::
LLLIA   :   :   :   :   :   :   :   :   :   :	integrin alpha-2b chain  integrin alpha-2b chain  10.5\$ Score 614.5; DB 2; Length 1041;  CONSERVATIVE 155; Mismatches 314; Indels 245; Gaps  GEGFSAAITSNGP-1LSTVGSYDMAGGVFLYTSKEKSTFINMTRVDSDWNDAVLG  QEGFSAAITSNGP-1LSTVGSYDMAGGVFLYTSKEKSTFINMTRVDSDWNDAVLG  QAGFSGIIFSDNSALVMGAPGSYYLQGOIYVQSILNRSV-VQATQESNTGTYSFDNSYRG  YAAAIILRNRVQSLVIGAPRYYEQTRAGGVSVCPLPRGONERNOVAGTQIGAYFGASLC  STALGDFNGGCVQDYVVGTPRASSLMGLVAIFDQNLAQFNQWGTQIVAYFGYSYL  SUVDI-NNDTYDDLLVGAPMYMDDGPAIQRWEAGAVYYLQNPDVGPGA
MLLNT-EILKKDSSSVIQ PNPLPLIVGSSVGGI CHNLEPRGYVGWITAISLLVG SU2 - sea urchin (Lyte s variegatus (variegate #sequence_revision 29- Clay, D.R. L Data Library, May 19- L	integrin alpha-2b chain  10.54; Score 614.5  Conservative 155; Mismatch  OEGFSAAITSNGPLLSTVGSYDWAGGVFL
1085FEVPN 1085FEVPN 1085FEVPN 1087FEVPN 1088FEVPN 1088	Superfamily: integrin  Ouery Match Best Local Similarity Best Local Similarity Matches 236; Conserv 33 OEGFSAAITS 181 QAGFSGIIFS 180 YAAAIILR 240 YSLALGDPNG 447 SVDVDSNGST 447 SVDVDSNGST 449 549 540 RNELSLSSTL 547 GISPSHSQRI 643 SLDAILNTEP 659 498 CFTYTGNYLP 659 498 CFTYTGNYLP 659 754 NGGNDNICQD 754 NGGNDNICQD 754 NGGNDNICQD 754 NGGNDNICQD 754 NGGNDNICQD 754 NGGNDNICQD 754 NGGNDNICQD 754 NGGNDNICQD 755 WRLERK 814 RNVSTLQNQR 814 RNVSTLQNQR 816 FDVDS
Db Db Db Db Db Db Db Db Db Db Db Db Db D	

: YSTQED 775	LVFLVPV 960	FYLLGI 834	RKAPVV 1005	DNVI 892	TAEILF 1059	ERTF 928	1092	VTPIAW 988	2	80
	-	YVVPPFPAKNASEADIGMEVM-HLYEVRNTGSSNAGEVSLNIQWPQKNEDGEYLFYLLGI 834	961 RINQTVIWDRPQVTFSENLSSICHTKERLPSHSDFLAELRKAPVV 1005	MTEEGVTCQLTQGKANPEGVKLEPSTKAKLSNSTTQVSGRKRREPEVAEALAQTDNVI 892	1006 NCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTARILF 1059	i i i i i i i i i i i i i i i i i i i	1060 NDSVFTLLPGGGAFVRSQTETKVEPFEVPNPLP	929 QKAVSELTPVVQATIASSASAAVKTIPYNIPLPRDFSDSTKASTLVTTEELVPPVTPIAW 988	1093 -LIVGSSVGGLLLALITAALYKLGFFKRQYKDMMSEGGPP 1132	GEEKEYAPVASADKDGPP 103
SENSEDPNTLENNELNM	923 YLNFTASENTSRVMQHQYQVSNLGQRSLPIS	ADIGMEVM-HLYEVRNTGS	T VTFSE	KANPEGVKLEPSTKAKLSN	IPFFGIQEEFNAT	893 YCASDSCVLINCTIDEINASKSKVVRILGRFW	FVRSQTETKVEPFEVPN	TIASSASAAVKTIPYNIPL	LALITAALYKLGFFKR	LLIILGLWKCGFFERKKP
GDKDSIEFYFKAE	YLNFTA	YVVPPFPAKNASE	RINGTVIMDRPQ-	MTEEGVTCQLTQG	NCSIAVCORIQCD	YCASDSCVLINCT	NDSVFTLLPGOGA	QKAVSELTPVVQA	-LIVGSSVGGLLL	MILVVSVLGGIIL:
718	923	176	961	835	1006	893	1060	929	1093	989
<b>Q</b>	ò	q	ઠે	q G	È	q	ò	đ	ò	q

Search completed: November 25, 2003, 14:21:55 Job time : 19.9579 secs

497 8.5 1396 491.5 8.4 1146 490 8.3 1039 489 8.3 1025	38 488 8.3 1033 1 39 486 8.3 126 1 40 478 8.0 1106 1 42 466 7.9 1226 1	444.5 7.6 1139 419 7.1 1115 382 6.5 1000		SULT 1 AM HUMAN	11AM HUMAN STANDAR P11215;	01-JUD-1989 (Rel. 11, Crear 01-OCT-1996 (Rel. 34, Last 15-SEP-2003 (Rel. 42, Last	DE INTEGETIA ADRA-M PRECURSOR (C Subunit) (CR-3 alpha chain) ( DE (Neutrophil adherence recepto GN ITGAM OR CR3A OR CD11B.	Homo sapiens (Huma Eukaryota, Metazoa	Mammalia; Eutheria NCBI_TaxID=9606; [1] SEQUENCE FROM N.A.	RX MEDLINE=88115033; Pubmed=2457 RA Corbi A.L., Kishimoto T.K., M RT "The human leukocyte adhesion	type 3, CD11b) alpha relation to the inte	[2] SEQUENCE FROM N.			RT homology to the alpha subunit				RT receptor Mol (complement rece		MEDLINE=93123748;	Fleming J.C., Pahl H.L., "Structural analysis of	the alpha-integrin		J. Immunol.	15] SEQUENCE OF 9	RX MEDLINE=89098893; Pubmed=2563 RA Hickarein D.D. Hickey M.I.			
gen Ltd.	time 9.17418  ignments	.244 Million cell updates/sec .PKRQYKDMMSEGGPPGAEPQ 1137			127863				predicted by chance to have a score of the result being printed, otal score distribution.		Description	homo mus m	P20702 homo sapien Q13349 homo sapien		mus m	pomod .	Q9ukx5 homo sapien P53710 bos taurus			Q00651 mene musculu	homo sap	Q91687 xenopus lae P17852 cricetidae	mus	P11688 mus musculu P26008 qallus qall	xenopu	P43406 mus musculu P23229 homo sapien	gallt		homod	States gain
Core version 5.1.6 1993 - 2003 Compugen	sw model	5828	Gapext 0.5	47026705 residues	chosen parameters:	0	0% 100% 45 summaries		results 1 to the of the t	SUMMARIES	ID	ITAM HUMAN ITAM MOUSE	ITAX_HUMAN ITAD_HUMAN	ITAL_HUMAN ITAL_MOUSE	ITAE MOUSE	ITAI HUMAN	ITAH HUMAN ITA2 BOVIN	ITA2_MOUSE ITA2_HUMAN	ITA1 RAT	ITA4_MOUSE	ITA9_HUMAN	ITA4 XENLA	ITA3_MOUSE	ITAS_MOUSE ITAV_CHICK	ITAS_XENLA	ITAV MOUSE ITA6 HUMAN	ITA6_CHICK	ITA3_HUMAN	ITAV_HUMAN	TING CHICK
Gen Gopyright (c)	protein search, using November 25, 2003,	US-09-902-481B-3 5879 1 FNLDTENAMTFQENARGFGQ	BLOSUM62 Gapop 10.0 , Gap	127863 segs, 470	hits satisfying	ength: 0 ength: 2000000000	Minimum Match Maximum Match Listing first	SwissProt_41:*	). is the number of reater than or equal	مو	Query Match Length DB	1152	8.6 1163 7.6 1162	6.1 1170 5.8 1163	9.3 1167	8.5 1151	8.4 1189 8.2 1170	8.0 1178 7.9 1181	7.8 1180	1.3 1039	0.7 1035	0.1 1032	.7 1053	.4 1053	.2 1050	.2 1044 .1 1130	9.1 1072 1	.0 1066	.0 1048	7 .
•	OM protein - prol Run on:	Title: Perfect score: Sequence:	Scoring table:	Searched:	Total number of 1	Minimum DB seg lo Maximum DB seg lo	Post-processing:	Database :	Pred. No. score grea		ore	1 5823.5 2 4447	344	1536.	1136.	1085.	1079.	105	104	99	63	594.	567.	555. 551.	542.	53	533.	531.	53	511

P12080 drosophila	Q24247 drosophila	P08514 homo sapien	P53708 homo sapien	Q9qum0 mus musculu	Pll578 cavia porce	Q13683 homo sapien	Q63258 rattus norv	P34446 caenorhabdi	Q03600 caenorhabdi	O44386 drosophila	Q9wlm8 drosophila
ITA2_DROME	ITA1 DROME	I ITAB HUMAN	ITA8_HUMAN	I TAB MOUSE	I ITAM CAVPO	ITA7 HUMAN	I ITA7 RAT	PAT2 CAEEL	INA1 CAEEL	I ITA3 DROME	ITA5_DROME
1396 1	1146 1	1039 1	1025 1	1033 1	126 1	1181 1	1106 1	1226 1	1139 1	1115 1	10001
8.5	9.4	8.3	8.3	8.3	8.3	8.1	8.0	7.9	7.6	7.1	6.5
497	491.5	490	489	488	486	478	470	466	444.5	419	382
34	35	36	37	38	39	40	41	42	43	44	45

	33 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 9 9 9 9 8 9 9 9 6 9 9 6 9 9 6 9 9 6 9 9 6 9		1039 1025 1033 126 1181		ITAB HUMAN ITAB HUMAN ITAB MOUSE ITAM CAVPO ITA7 RAT	P08514 homo sapien P53708 homo sapien Q9qum0 mus musculu P11578 cavia porce Q11683 homo sapien Q63258 rattus norv	
	4 4 5 2 E	466 444.5	9.7	1226		PAT2_CAEEL INA1_CAEEL	P34446 caenorhabd	·
	44 45		7.1	1115		ITA3_DROME ITA5_DROME	044386 drosophila Q9w1m8 drosophila	
						ALIGNMENTS		
REC	RESULT 1 ITAM_HUMAN	3						
8 B	P112	4 HUMAN 215;	ST	ANDARD;		PRT; 1152 A.	4	
ដដ	210	JUL-1989 JCT-1996	(Rel.	11, Cr 34, La	eat.	ed) sequence update	OT 01-JUL-1989 (Rel. 11, Created) OT 01-OCT-1996 (Rel. 34, Last sequence update)	
0 E	15-8 Inte	SEP-2003 egrin alp	Rel.	42, La precurs	ָ ה ה	annotation upda (Cell Burface g	te) lycoprotein MAC-1 alpha	
383	(Neu	utrophil	adher	pna cna ence re	cep(	(CDIID) (Leuko tor).	cyte adhesion receptor MOI)	
S S	HOMC	www.ckg sapiens	A OR (Hum	CD11B.				
88	Euka Mamm	aryota; M nalia; Eu	etazo	a; Chór. a; Prima	dat, ate,	a, Craniata, Ve. 8; Catarrhini; 1	rtebrata; Euteleostomi; Hominidae; Homo.	
ŏ	NCBI	TaxID=9	909					
2 2	SEQU	JENCE FRO	M.N.A.					
X &		LINE=8831	5033; Kiahir	PubMed	=24	57584; Miller L.J. St	MEDLINE=88315033; PubMed=2457584; Corbi A.L., Kishimoto T.K., Miller L.J., Springer T.A.	
7.		human l	enkoc	yte adh	681	on glycoprotein	Mac-1 (complement receptor	
X X		e 3, CD11 ation to	b) al	pna sub ntegrin	un1.	t. Cloning, pri von Willebrand	mary structure, and factor and factor B.";	
5 5		aiol. Che	m. 26	3:12403	-15	411 (1988) .		
Z 2		JENCE FRO	M N.A	٠				
2 2 2 2		CINE=8819	0151;	PubMed old-0'n	=28.	33753; ell E : Dierce l	Tonon D	
2		lecular c	lonin	g of th	e e	lpha subunit of	and guinea pig	
R R		kocyte ad Slogy to	hesio the a	n glyco loha suj	pro	leukocyte adhesion glycoprotein Mol: chromosomal homology to the alpha subunits of integrins.":	_	
25		. Natl.	Acad.	Sci. U	S	A. 85:2776-2780	(1988).	
Z 2		JENCE FRO	M.N.					
X		LINE-8825 30ut M.A.	7215; . Gup	PubMed ta S.K.	=24 P	MEDLINE=88257215; PubMed=2454931; Arnaout M.A., Gubta S.K., Pierce M.W., Tenen D.	en D.G.:	
E E		ino acid	seque.	nce of	the	alpha subunit	of human leukocyte adhesion	
Z Z		Jell Biol	106	:2153-2	158	(1988).	••	
N G		Oda aonai	2					
2 2		LINE=9312	3748;	PubMed	=84	19480;		
<b>2</b> 5		ning J.C.	, Pah	1 H.L.,	g 4	nzalez D.A., Sm	ith T.F., Tenen D.G.;	
Z \$		alpha-in	tegri	n gene	fam	ily demonstrate	pnylogeneric analysis of remarkable conservation of	
E E		omic orga	nizat	ion and	BU	ggest early div		
		[mmunol.	150:4	80-490 (	199	3).		
Z :					•			
ž X		SEQUENCE OF 9-1153 FROM MEDLINE-89098893; Pubm	9-115	မ်း	N.A. I=2563∶	63162;		
8 8		kstein D.	D., H	2	ن	Ozols J	er D.M., Back A.L.,	
₹ ₹		, ,	ce fo	r the a	alpha	unqns W	it of the human neutrophil	
R.		rence re	cepto	r indica	ates	homolog	ntegrin alpha subunits.";	
Z Z		י זאמרד.		301.	מ		. (606	

```
This SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=98226734; PubMed=9560195;

A OXVIG C., Springer T.A.;

A OXVIG C., Springer T.A.;

A OXVIG C., Springer T.A.;

I "Experimental support for a beta-propeller domain in integrin alpha-subdinits and a calcium binding site on its lower surface.";

Proc. Natl. Acad. Sci. U.S.A. 95:4870-4875(1998).

L--PUNCTION: INTEGRIN ALPHA-M/BETA-2 IS IMPLICATED IN VARIOUS

ADHESIVE INTERACTIONS OF MONOCYTES, MACROPHAGES AND GRANULOCYTES.

T IS IDENTICAL WITH RR. 9.7 THE ECSEPTOR FOR THE ICSB PRAGMENT OF THE THEND COMPLEMENT OF THE THEND COMPLEMENT OF PEPTIDE IN C3B. INTEGRIN ALPHA-M/BETA-2 IS ALSO A RECEPTOR FOR FOR THE ICSB PRAGMENT OF PERTINGEN, FACTOR X AND ICAM1. IT RECOGNIZES THE R-G-D PEPTIDES

C PEDRINGEN, FACTOR X AND ICAM1. IT RECOGNIZES PI AND P2 PEPTIDES

C SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-M ASSOCIATES WITH BETA-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -!- DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
-!- SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
-!- GIMILARITY: CONTAINS 1 VWFA domain.
-!- SIMILARITY: CONTAINS 7 FG-GAP repeats.
-!- DATABASE: NAME=PROW; NOTE=CD guide CD11b entry;
WWW="http://www.ncbi.nlm.nih.gov/prow/cd/cd11b.htm".
                                                                                                                                                                                                                                                                                                                                                                                                                                                         X-RAY CRYSTALLOGRAPHY (1.7 | ANGSTROMS) OF 148-331.
MEDBINE=95171458; PubMed=7867070;
Lee [J.O., Rieu P., Arnaout | M.A., Liddington R.;
Crystal structure of the A domain from the alpha subunit of integrin CR3 (CD11b/CD18).";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                X-RAY CRYSTALLOGRAPHY (2.0 ANGSTROMS) OF 148-334.
MEDLINE=5635671; PubMed=8747460;
Lee J.O., Bankston L.A., Afriaout M.A., Liddington R.C.;
"Two conformations of the integrin A-domain (I-domain): a pathway for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 X-RAY CRYSTALLOGRAPHY (2.7) ANGSTROMS) OF 148-337.

MEDLINE=98362595; PubMed=9687375;
Baldwin E.T., Sarver R.W., Bryant G.L. Jr., Curry K.A.,
Fairbanks M.B., Finzl. B.C., Gallick R.L., Heinrikson R.L.,
Horton N.C., Kelley L.L., Mildner A.M., Moon J.B., Mott J.E.,
Mutchler V.T., Tomich C.S., Matenpaugh K.D., Wiley V.H.;
"Cation binding to the integrin CD11b I domain and activation model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBCELLULAR LOCATION: Type I membrane protein.
TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN MONOCYTES AND
                                                                                                                                                                                                                                                                                                      SEQUENCE OF 17-31.

MEDLINE=87076671; PubMed=3539202;
Pierce M.W., Remold-O'Donnell E., Todd R.F. III, Arnaout M.A.;
"N-terminal sequence of human leukocyte glycoprotein Mol:
conservation across species and homology to platelet IIb/IIIa.";
Biochim. Biophys. Acta 874;368-371(1986).
SEQUENCE OF 1-9 FROM N.A. MEDLINE=92073318; PubMed=1683702; Shelley C.S., Arnaout M.A.; Pithe promoter of the CDIId gene directs myeloid-specific and developmentally regulated expression."; Proc. Natl. Acad. Sci. U.S.A. 88:10525-10529(1991).
                                                                                                                                                   SEQUENCE OF 1-9 FROM N.A.
TISSUE-Blood;
MEDLINE-92144986; PubMed-1346576;
Pahl H.L., Rosmarin A.G., Tenen D.G.;
"Characterization of the myeloid-specific CD11b promoter.";
Blood 79:865-870(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Structure 3:1333-1340(1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Structure 6:923-935(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cell 80:631-638(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GRANULOCYTES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        assessment."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        activation?'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
```

```
between the Swiss Institute of Bioinformatics and the EMBL outstation-
the European Bioinformatics Institute. There are no restrictions on its
use by non-profit institutions as long as its content is in no way
modified and this statement is not removed. Usage by and for commercial
entities requires a license agreement (See http://www.isb-sib.ch/announce/
or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R GO; GO: 0008305; C:integrin complex; TAS.

R GO; GO: 0004895; F:cell adhesion receptor activity; TAS.

R InterPro; IPR000213; Innegrin_alpha.

R InterPro; IPR0002035; VWF.A.

R Pfam; PR001357; integrin_A; 1.

R Pfam; PR001357; integrin_A; 1.

R PRINTS; PR01453; VWFADOMAIN.

R PRINTS; PR00191; Int. alpha; 4.

R PRAFT; SM00191; Int. alpha; 4.

R PROSITE; PS00242; INTEGRIN ALPHA; 1.

R PROSITE; PS00242; INTEGRIN ALPHA; 1.

R PROSITE; PS0134; VWFA; 1.

R PROSITE; PS0134; VWFA; 1.

R PROSITE; PS0134; VWFA; 1.

R PROSITE; PS0134; VWFA; 1.

Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane; W Signal; 3D-structure; Repeat; Magnesium; Calcium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INTEGRIN ALPHA-M.
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               POTENTIAL.
CYTOPLASMIC (POTENTIAL)
FG-GAP 1.
                                                                                                                                         JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
                                                                                       EMBL; J03925; AAA59544.1; -.
EMBL; M18044; AAA59491.1; -.
EMBL; J04145; AAA59903.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL, S52222; AB24821.1; JO
EMBL, S52222; AB24821.1; JO
EMBL, MM477; AAA51960.1; -
EMBL, MM477; AAA51960.1; -
PDB; A31108; RWHU1B.
PDB; 1A8X; 17-JUN-98.
PDB; 1BHO; 18-NOV-98.
PDB; 1BHO; 18-NOV-98.
PDB; 1DDO; 01-AUG-96.
PDB; 1DDO; 01-AUG-96.
PDB; 1DDO; 01-AUG-96.
PDB; 1DDO; 01-AUG-96.
PDB; 1DDO; 01-AUG-96.
PDB; 1DDO; 01-AUG-96.
PDB; 1DDO; 01-AUG-96.
PDB; 1DDO; 01-AUG-96.
PDB; 1DDO; 01-AUG-96.
                                                                                                                                                                                                                                                                                                                                                                                                           AAB24821.1;
AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAB24821.1;
AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                          AAB24821.1;
AAB24821.1;
                                                                                                                                                                                                                                                                                                                                AAB24821.1;
                                                                                                                                                                                                                                                                                                                                             AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                   AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAB24821.1;
                                                                                                                                         AAB24821.1;
AAB24821.1;
                                                                                                                                                                                                                                                                                           AAB24821.1;
                                                                                                                                                                                                                                                                                                          AAB24821.1
                                                                                                                                                                                                                                                                      AAB24821.1
                                                                                                                                                                                                                              AAB24821.
AAB24821.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1152
1104
1128
1152
                                                                                                                                                                                                       AAB24821
                                                                                                                                                                                                                     AAB24821
                                                                                                                                                                                                                                                                                                                       AAB24821
                                                                                                                                                                                                                                                                                AAB24821
                                                                                                                           EMBL, $52227, A.
EMBL, $52127, A.
EMBL, $52153, A.
EMBL, $52154, A.
EMBL, $52155, A.
EMBL, $52155, A.
EMBL, $52159, A.
EMBL, $52169, A.
EMBL, $52169, A.
EMBL, $52169, A.
EMBL, $52169, A.
EMBL, $52169, A.
EMBL, $52169, A.
EMBL, $52169, A.
EMBL, $52169, A.
EMBL, $52169, A.
EMBL, $52169, A.
EMBL, $52169, A.
EMBL, $52169, A.
EMBL, $52170, A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                S52219; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S52221;
S52222;
                                                                                                                                                                                                                                                                                           S52173;
                                                                                                                                                                                                                                                                                                          852174;
                                                                                                                                                                                                                                                                                                                     $52180;
                                                                                                                                                                                                                                                                                                                                   $52181;
                                                                                                                                                                                                                                                                                                                                             S52184;
                                                                                                                                                                                                                                                                                                                                                            $52189;
                                                                                                                                                                                                                                                                                                                                                                      $52191;
                                                                                                                                                                                                                                                                                                                                                                                  $52192;
                                                                                                                                                                                                                                                                                                                                                                                                 $52203;
                                                                                                                                                                                                                                                                                                                                                                                                                                    $52216;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHAIN
DOMAIN
TRANSMEM
DOMAIN
REPEAT
                                                                                                                                                                                                                                                                                           EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                               EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL;
```

```
MDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ed through a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATED IN VARIOUS
AGES AND GRANULOCYTES
EMENT-COATED PARTICLES.
THE IC3B FRAGMENT OF
RECOGNIZES THE R-G-D
RECONIZES THE R-G-D
REASO A RECEPTOR FOR
ES P1 AND P2 PEPTIDES
LAY A CRITICAL ROLE IN
"MEDIATED
"MUDATION OF THE ALPHA-M
PHIL ACCUMULATION, IN
AGGOCYTOSIS, EVENTS THAT
ILS. THESE MICE DEVELOP
                                                         LOYKDMMSEGGPPGAEPO 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VWFA DOMAIN. INTEGRINS
AGE.
AIN FAMILY.
                                                                                                                                                                                                                                       otein MAC-1 alpha
Thesion receptor MO1).
                                                                                                                                                                                                                                                                                                                                                                                                        nain reveals homology
n related to von
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    it of the mouse molecule Mac-1.";
                                                                                                                                                                                                                                                                                                  ia; Euteleostomi;
Jae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.
IN MONOCYTES AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rte adhesion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HAIN. ALPHA-M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gee C.E.,
```

180

240 256 300

```
VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YGASIASLSASHSHRIIGAHFSPGLQYFGQSLSGGKDLTMDGLMDLAVGAQGHLLLLRAQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRL-ACESASSTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           840 VSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FOLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                             NPEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                    GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                   PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                            PLOVPPEAVNMSLGLSLAVSTVPQQLLACGPTVHQNCKENTYVNGLCYLFGSNLLRPPQQ
                                                               FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEF
                                                                                                                                           TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                                            QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                FPEALRECPOOESDIVFLIDGSGSINNIDFORMKEFVSTVMEOFKKSKTLFSLMOYSDEF
                                                                                                                            RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . 955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       096
                                                                                                 137
                                                                                                                                                       197
                                                                                                                                                                                                                257
                                                                                                                                                                                                                                                                         317
                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                        437
                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  916
                                                                      121
                                                                                                                            181
                                                                                                                                                                                     241
                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                셤
                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                              음
                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                     ઠે
                                                                                             셤
                                                                                                                           ઠ
                                                                                                                                                                                  Š
                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7
            the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                96
of Bioinformatics and the EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2;
                                                                                                                                                                                                                                                                                                   PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS50234; VWPA; 1.
Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CRC64;
                                                                                                                                                                                                                                                                                                                                                                           INTEGRIN ALPHA-M.
EXTRACELLULAR (POTENTIAL).
POTENTIAL.
CYTOPLASMIC (POTENTIAL).
FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 178DB988AECB0343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 4447; DB 1; 1; Pred. No. 4.5e-296; 147; Mismatches 153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GLCNAC.
(GLCNAC.
(GLCNAC.
(GLCNAC.
(GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POTENTIAL.

GFFKR MOTE.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SI
                                                                                                                                                                                                                                                                                                                                                                                                                                                               VWFA.
FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
POTENTIAL.
                                                                                                                                        HSSP, P11215; 1A8X.
MGD; MGI:96607; Itgam.
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR0002035; VWF A.
Pfam; PF001839; PG-GAP; 3.
Pfam; PF001839; PG-GAP; 3.
Pfam; PF00185; integrin_A; 1.
PRINTS; PR00185; INTEGRINA.
PRINTS; PR00185; INTEGRINA.
SMART; SM00191; Int_alpha; 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-LINKED
N-LINKED
N-LINKED
 Swiss Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 127480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 75.6% Best Local Similarity 73.5% Matches 836; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FNLDTENAMTFOENARG
                                                                                                EMBL; X07640; CAA30479.1;
EMBL; M14293; AAA39484.1;
PIR; S00551; S00551.
HSSP; P11215; 1A8X.
                                                                                                                                                                                                                                                                                                                                              Signal; Calcium; Repeat.
                                                                                                                                                                                                                                                                                                                                                                  16
1153
1105
1129
1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      776
1023
1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 58
391
696
734
772
801
881
907
941
980
1022
1025
11051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ¥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            994
1022
1045
1051
1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISULFID
DISULFID
DISULFID
DISULFID
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17
                                                                                                                                                                                                                                                                                                                                                                            CHAIN
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REPEAT
REPEAT
REPEAT
CA BIND
CA BIND
CA BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                 REPEAT
DOMAIN
REPEAT
REPEAT
ઠ
```

540

555

480 496

436

420

360 376 900 615 9 675 720 780 795 839

735

899

855

```
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its most py non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and p150,95 leukocyte adheaion proteins.";
-!- FUNCTION: 138:2381-2383(1987).
-!- FUNCTION: INTEGRIN ALPHA-Y-KBETA-2 IS A RECEPTOR FOR FIBRINOGEN. IT
RECOGNIZES THE SEQUENCE G-P-R IN FIBRINOGEN. IT MEDIATES CELL-CELL
INTERACTION DURING INFLAMMATORY RESPONSES. IT IS ESPECIALLY
IMPORTANT IN MONOCYTE ADHESION AND CHEMOTAXIS.
-!- SUBDUNIT: HETERODINER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-X
ASSOCIATES MITH BETA-2.
-!- SUBCELLULAR LOCATION: Type I membrane protein.
-!- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN MONOCYTES AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GRANULOCYTES.

DOMAIN: THE INTEGRIN 1-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH 1-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
SIMILARITY: Contains 1 WFA domain.
SIMILARITY: Contains 7 FG-GAP repeats.
DATABASE: NAME-PROW: NOTE-CD guide CD11c entry:
WWW-"http://www.ncbi.nlm.nih.gov/prow/cd/cd11c.htm".
                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.

MEDLINE=8816645; PubMed=3327697;
Corbi A.L., Miller L.J., O'Connor K., Larson R.S., Springer T.A.;
Corbi A.Loning and complete primary structure of the alpha subunit of a leukocyte adhesion glycoprotein, plS0,95.";
EMBO J. 6:4023-4028(1987).
                                                                                                 01-FEB-1991 (Rel. 17, Created)
15-FEB-1991 (Rel. 17, Last sequence update)
15-FEB-1991 (Rel. 17, Last sequence update)
15-FEB-1991 (Rel. 17, Last sequence update)
11-ESP-2031 (Rel. 42, Last sequence update)
11-ESP-2031 (Rel. 7)
11-ESP-2031 (Rel. 7)
11-ESP-2031 (Leukocyte adhesion receptor p150,95) (CD11C) (Leu MS).
11-GAX OR CD11C.
11-GAX OR CD11C.
11-GAX OR CD11C.
12-GAX OR CD11C.
13-GAX OR CD11C.
14-GAX OR CD11C.
15-GAX OR CD11C.
15-GAX OR CD11C.
16-GAX OR CD11C.
17-GAX OR CD11C.
17-GAX OR CD11C.
18-GAX OR CD11C.
18-GAX OR CD11C.
18-GAX OR CD11C.
18-GAX OR CD11C.
19-GAX OR CD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE OF 20-43.
MEDLINE=87167596; PubMed=3549901;
Miller L.J., Wiebe M., Springer T.A.;
"Purification and alpha subjuit N-terminal sequences of human Mac-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=90153906; PubMed=2303426;
Corbi A.L., Garcia-Aguilar J., Springer T.A.;
"Genomic structure of an integrin alpha subunit, the leukocyte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Corbi A.L., García-Aguilar J., Springer T.A.,
J. Biol. Chem. 265:12750-12751(1990)
                                                               1163 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   - NOT ANNOTATED CDS.
AAA51620.1; ALT SEQ.
AAA51620.1; JOINED.
AAA51620.1; JOINED.
AAA51620.1; JOINED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Biol. Chem. 265:2782-2788 (1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          M81695; AAA59180.1; -
Y00093; CAA68283.1; -
                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        pls0,95 molecule.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        M29484;
M29485;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           M29487;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         M29483;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 M29482;
                                                            HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ERRATUM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL;
EMBL;
EMBL;
                                         TAX HUMAN
```

```
61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20 FNLDTEELTAFRVDSAGFGDSVVQYANSWVVVGAPQKITAANQTGGLYQCGYSTGACEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          80 GLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PSS0234; VWFA; 1.
Integrin; Cell adheion; Receptor; Glycoprotein; Transmembrane;
Signal; Magnesium; Calcium; Repeat; 3D-structure.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1163;
                                                                                                                                       GO, GO.0008305; Cintegrin complex; TAS.
GO; GO.0004895; F:cell adhesion receptor activity; TAS.
GO; GO.0004872; F:receptor activity; TAS.
GO; GO.0004872; F:receptor activity; TAS.
GO; GO.0007397; P:hietogenesis and organogenesis; TAS.
InterPro; IPR002013; INTEGRIN_A.
InterPro; IPR003015; VWF_A.
Pfam; PF00387; integrin_A; 1.
Pfam; PF00387; integrin_A; 1.
Pfam; PF00387; vwa; 1.
PRINTS; PR01185; INTEGRINA.
PRINTS; PR00431; VWFADOMAIN.
SMART; SM00327; VWA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6C4E19CC3F62A473 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EXTRACELLULAR (POTENTIAL) POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 58.6%; Score 3446; DB 1; 3
Best Local Similarity 60.5%; Pred. No. 1.5e-227;
Matches 683; Conservative 143; Mismatches 297;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              G -> A (IN REF. 2)
L -> D (IN REF. 2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INTEGRIN ALPHA-X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCNAN-LINKED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GFFKR MOTIF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL. POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
EMBL; M29486; AAA51620.1; JOINED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                127885 MW;
                                                           PDB; 1N3Y; 18-FEB-03.
Genew; HGNC:6152; ITGAX.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1107
1128
1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             863
1022
1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 756 75
1163 AA;
                         PIR; A36584; RWHU1C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CHAIN
DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REPEAT
REPEAT
CA BIND
CA BIND
CA BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REPEAT
```

9

(CD11d)

â

(Leukointegrin alpha

integrin alpha-D precursor

```
1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                             360
                                                                                                                   420
                                                                                                                                      437
                                                                                                                                                          480
                                                                                                                                                                             497
                                                                                                                                                                                                 540
                                                                                                                                                                                                                    556
                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                          616
                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                919
                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                       736
                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                             796
                                                                                                                                                                                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                                                                                                                                                                     854
                                                                                                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                                                                                                             914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  974
                   257
                                                         317
                                                                                               377
RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
           OTHETFEEFRRTSNPLSLLASVHQLQGFTYTATAIQNVVHRLFHASYGARRDATKILIVI
                                       TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                 NFEALKTVQNQLREKI FAI EGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                         GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                     GAFLY PPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVQSLVLGAPRYQHTGKAVIFT
                                                                                                                                                                   PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                           YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                              SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                       GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                              SCALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                    QLELPVKYAVYMVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            915 QLELPVKYAVTVVSSHEQFTKYLNPSESBEKESHVAMHRYQVNNLGQRDLPVSINFWVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PFFGIQEEFNATLKGNLSFDWY1KTSHNHLL1VSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                          QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEBDNRGAVYLF
                                                                                                                                                                                                                                        HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE
                                                                                                                                                                                                                                                           557
                                                                                                                                                                                                                                                                                                617
                                                                                                                                                                                                                                                                                                                     . 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       . 096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1095
 181
                   198
                                        241
                                                                             301
                                                                                                                                      378
                                                                                                                                                          421
                                                                                                                                                                             438
                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                             855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                    361
                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                  8 8 8
                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                셤
                                      ò
                                                      g
                                                                           ò
                                                                                             g
                                                                                                                  ò
                                                                                                                                  q
                                                                                                                                                     ò
                                                                                                                                                                          g
                                                                                                                                                                                          රි සි
                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                       ઠે
```

```
between the Swiss Institute of Bioinformatics and the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/entities requires)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SWISS-PROT entry is copyright. It is produced through a collaboration en the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUSCITED THE BETA-2.
SUBCELLULAR LOCATION: Type I membrane protein.
SUBCELLULAR LOCATION: Type I membrane protein.
TISSUE SPECIFICITY: EXPRESSED MODERATELY ON MYELOMONOCYTIC CELL
LINES AND SUBSETS OF PERTPHERAL BLOOD LEUXOCYTES AND STRONGLY ON
TISSUE-SPECIALIZED CELLS, INCLUDING MACROPHAGES FOAM CELLS WITHIN
ATHERSCLEROTIC PLAQUES, AND ON SPLENIC RED PULP MACROPHAGES.
DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS
WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
SIMILARITY: CONTAINS 17 FG-GAP repeats.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=99059842; PubMed=9841932; Grayson M.H., Van der Vieren M., Sterbinsky S.A., Michael Gallatin W., Hoffman P.A., Staunton D.E., Bochner B.S.; "alphadbeta2 integrin is expressed on human eosinophils and functions as an alternative ligand for vascular cell adhesion molecule 1
                                                                                                                                                                                                                                                                                                                                                                                  the leukocyte integrin
                                                                                                                                                                         MEDLINE-$6111956; PubMed-8777714;
Van der Vieren M., Le Trong H., Wood C.L., Moore P.F., St John T.,
Staunton D.E., Gallatin W.M.;
"A novel leukointegrin, alpha d beta 2, binds preferentially to ICAM-
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Y.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=99370002; PubMed=10438935;
Van der Vieren M., Crowe D.T., Hoekstra D., Vazeux R., Hoffman P.A.,
Grayoon M.H., Bochner B.S., Gallatin W.M., Staunton D.E.;
Grayoon H.H., Bochner B.S., Gallatin W.M., Staunton D.E.;
The leukocyte integrin alpha D butia VGM-1.";
J. immunol. 163:1984-1990[1999]
-!- FUNCTION: INTEGRIN ALPHA-D/BETA-2 IS A RECEPTOR FOR ICAM3 AND
VCAM1. MAY PLAY A ROLE IN THE ATHEROSCLEROTIC PROCESS SUCH AS
CLEARING LIPOPROTEINS FROM PLAQUES AND IN PHAGOCYTOSIS OF BLOOD-
BONNE PATHOCENS, PARTICULATE MATTER, AND SENESCENT ERYTHROCYTES
                                                          Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-D
                                                                                                                                                                                                                                                                                                                                                                                                                                                              910-1125 FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE OF 467-537; 571-602; 633-666; 788-834 AND 910-1125 FRC MEDLINE-9625-236; PubMed-8666289; WONG D.A., Davis E.M., LeBeau M., Springer T.A.; "Cloning and chromosomal localization of a novel gene-encoding
                                                      Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, E
Mammalia, Butheria, Primates, Catarrhini, Hominidae,
                                                                                                                                                                                                                                                                                                                                                                                ŏ
                                                                                                                                                                                                                                                                                                                  SEQUENCE OF 1-235 FROM N.A.
MEDLINE=20187620; PubMed=10722744;
Noti J.D., Johnson A.K., Dillon J.D.;
"Structural and functional characterization of appen CD11d. Essential role of Spl and Sp3.";
J. Biol. Chem. 275:8959-8969(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Exp. Med. 188:2187-2191(1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           beta 2-Întegrin alpha subunit.";
Gene 171:291-294(1996).
                                                                                                                                                                                                                                                                            Immunity 3:683-690(1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INTERACTION WITH VCAM1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INTERACTION WITH VCAM1
                                   (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FROM THE BLOOD
                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                NCBI_TaxID=9606;
                                                                                                                                                               rissue=Spleen;
                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (VCAM-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ++
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -
```

EMBL; U37028; AAB38547.1; -.

TIAD HUMAN STANDARD; PRT; 1162 AA. 013349; 015575; 015576; 16-0CT-2001 (Rel. 40, Created) 26-0CT-2001 (Rel. 40, Last sequence update) 28-FEB-2003 (Rel. 41, Last annotation update)

RESULT 4 | ITAD HUMAN ID ITAD H AC 013349 DAC 16-0CT DT 16-0CT DT 28-FEB

```
1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600
                                                                         61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                          301 NFEALKTVONOLREKIFAIEGTQTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18 FNLDVEEPTIFQEDAGGFGQSVVQFGGSRLVVGAPLEVVAANQTGRLYDCAAATGMCQPI 77
                                                                                                                                                                                                                                                                                                                                               TDGEKFGDPLGYEDVI PELDREGVI RYVLGFGDA FRSEKSRQELNTVASKPPRDHV FQAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           795 SSLELNVIVTVWNAGEDSYGTVVSLYYPAGLSHRRVSGAQKQPHQSALRLACETV-PTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                854 EG-LRSSRCSVNHPIFHEGSNGTFIVTFDVSYKATLGDRMLMRASASSENNKASSKATF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          960 VRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GPREFNVTVTVRNDGEDSYRIQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                              PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                      PRGQRVQWQCDAVLRGEQGHPWGRFGAALTVLGDVNEDKLIDVAIGAPGEQENRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421 ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                      ठे
                                                                                                                 셤
                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                 MIM; 602453; -

R GO; GO:0008305; C:integrin complex; TAS.

R GO; GO:0008305; C:ell adhesion receptor activity; TAS.

R GO; GO:000160; P:cell adhesion; NAS.

R GO; GO:0007160; P:cell-matrix adhesion; NAS.

R GO; GO:0007160; P:cell-matrix adhesion; NAS.

R GO; GO:0007160; P:cell-matrix adhesion; NAS.

R GO; GO:0007160; P:cell-matrix adhesion; NAS.

R GO; GO:0007160; P:cell-matrix adhesion; NAS.

R GO; GO:0007160; P:cell-matrix adhesion; NAS.

R PFINYS; PRO1041; Integrin—alpha.

R PRINTS; PRO1057; integrin—A; 1.

R PRINTS; PRO1057; vwa; 1.

R PRINTS; PRO1051; Int alpha; 1.

R PRART; SM00121; Int alpha; 1.

R PROSITE; PS00242; INTEGRIN

R PROSITE; PS00244; vWAP; 1.

R PROSITE; PS00244; vWAP; 1.

M MAGNESIME, Cell adhesion; Receptor; Glycoprotein; Transmembrane; SIGNAL

SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       57.6%; Score 3388; DB 1; Length 1162; 58.9%; Pred. No. 1.4e-223;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10.18
10.19
10.28
10.28
10.28
10.28
10.28
10.28
10.28
10.28
10.28
10.28
10.28
10.28
10.28
10.28
10.28
10.28
10.28
10.28
10.28
10.28
10.28
10.28
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38
10.38

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ouery Match
Best Local Similarity 58.9%; Pred. No. 1.4e-223;
Matches 665; Conservative 168; Mismatches 288; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INTEGRIN ALPHA-D.
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          POTENTIAL.
CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POTENTIAL.
GFFKR MOTIF.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FG-GAP 1.
FG-GAP 2.
VWFA.
FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POTENTIAL
EMBL; U40274; AAB60634.1; EMBL; U40275; AAB60635.1; U40276; AAB60635.1; EMBL; U40277; AAB60637.1; EMBL; U40279; AAB60637.1; EMBL; U40279; AAB60638.1; U40278; EMBL; AF187881; AAB6083.1; U40278; AAB60838.1; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U40278; U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1018
1028
59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ā.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          655
769
846
994
1023
1023
873
957
1046
500
515
825
985
1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHAIN
DOMAIN
TRANSEM
DOMAIN
DOMAIN
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
CA BIND
CA BIND
CA BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CONFLICT
CONFLICT
CONFLICT
CONFLICT
SEQUENCE
```

496

420

436 480

300

616 9 720

734

674

780

794

840 853 900 912 959 1019 1030 1090

1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128

9

FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI

ò

œ

```
CD11a I-domain.";
J. Mol. Biol. 292:1-9(1999).
-!-FUNCTION: INTEGRIN ALPHA-L/BETA-2 IS A RECEPTOR FOR ICAM1, ICAM2, ICAM3 AND ICAM4. IT IS INVOLVED IN A VARIETY OF IMMUNE PHENOMENA INCLUDING LENGOCYTE-ENDOTHELIAL CELL INTERACTION, CYTOTOXIC T-CELL MEDIATED KILLING, AND ANTIBODY DEPENDENT KILLING BY GRANULOCYTES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=99425270; PubMed=10493829; MEDLINE=99425270; PubMed=10493829; Loftus B.J., Kim U.-J., Sneddon V.P., Kalush F., Brandon R., Enhrmann J., Mason T., Crosby M.L., Barnstead M., Cronin L., Deslattes Mays A., Cao Y., Xu R.X., Kang H.-L., Mitchell S., Bichler E.E., Harris P.C., Venter J.C., Adams M.D.; "Genome duplications and other features in 12 Mb of DNA sequence from human chromosome 16p and 16q.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. (ISOFORM 1), AND PARTIAL SEQUENCE.
MEDLINE=89139587; PubMed=2537322;
Larson R.S., Corbi A.L., Berman L., Springer T.;
Primary structure of the leukocyte function-associated molecule-1
alpha subunit: an integrin with an embedded domain defining a protein superfamily.";
J. Cell Biol. 108:703-712(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  X-RAY CRYSTALLOGRAPHY (2.6 ANGSTROMS) OF 153-334.
MEDLINE-59425288; PubMed=10493852;
Rallin J., Welzenbach K., Ramage P., Geyl D., Kriwacki R., Legge G.,
Cottens S., Weltz-Schmidt G., Hommel U.;
"Structural basis for LFA-1 inhibition upon lovastatin binding to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        X-RAY CRYSTALLOGRAPHY (1.8 ANGSTROMS) OF 153-335, AND REVISION TO 214 MEDLINE=96036067; PubMed=7479767;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            I-domain from the CD11a/CD18 (LFA-1, alpha
                                                                                                                                                               TTAL HUMAN STANDARD; PRT; 1170 AA.
P20701; 043746;
01-PEB-1991 (Rel. 17, Created)
10-NOV-1995 (Rel. 32, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
Integrin alpha-L precursor (Leukocyte adhesion glycoprotein LFA-1 alpha chain) (Leukocyte function associated molecule 1, alpha chain)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cation in the structure of the I domain
                                                                                                                                                                                                                                                                                                                                                                                                                                      ITGAL OR CD11A.

Homo sapiens (Human).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-L
ASSOCIATES WITH BETA-2.
1091 MVLEEDEVYNAIPIIMGSSVGALLLLALITATLYKLGFFKRHYKEMLED 1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Proc. Natl. Acad. Sci. U.S.A. 92:10277-10281 (1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Isoid=P20701-2; Sequence=VSP 002738;
Note=No experimental confirmation available;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -!-'SUBCELLULAR LOCATION: Type I membrane protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               X-RAY CRYSTALLOGRAPHY (2.0 ANGSTROMS) OF 153-335.
MEDLINE=96398682; Pubmed=8805579;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IsoId=P20701-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Qu A., Leahy D.J.;
"The role of the divalent catior
from the CD11a/CD18 integrin.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Genomics 60:295-308(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ou A., Leahy D.J.;
"Crystal structure of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Structure 4:931-942 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            beta 2) integrin."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                          (CD11a)
                                                                                               LT 5 HUMAN
                                                                                                                                                                      DDT TO DE THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE 
요
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch)
              -i- DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
-i- SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
-i- SIMILARITY: Contains 1 VWFA domain.
-i- SIMILARITY: Contains 7 FG-GAP repeats.
-i- DATABASE: NAME=PROW; NOTE=CD guide CD11a entry;
WWW="http://www.ncbi.nlm.nlh.gov/prow/cd/cd11a.htm".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            . .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIMILARITY.
SIMILARITY.
SIMILARITY.
SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-LINKED
SPECIFICITY: LEUKOCYTES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BY
BY
BY
BY
BY
BY
BY
                                                                                                                                                                                                                                                                                                                                   EMBL; Y00796; CAA68747.1; -.
                                                                                                                                                                                                                                                                                                                                                   EMBL; AC002310; AAC31672.1;
PIR; S03308; S03308.
                                                                                                                                                                                                                                                                                                                                                                                        PDB; ILFA; 29-JAN-96; PDB; ILCO; 07-DEC-96; PDB; IZCO; 07-DEC-96; PDB; ICQP; 07-DEC-96; PDB; ICQP; 07-AUG-00; PDB; IMQP; 14-JAN-03; PDB; IMQP; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; 14-JAN-03; PDB; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQA; IMQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
```

```
1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1102
 369
                                                                                            470
                                                                                                                                                                                                                                                                                                                      999
                                                                                                                                                                                                                                                                                                                                                    707
                                                                                                                                                                                                                                                                                                                                                                                   718
                                                                                                                                                                                                                                                                                                                                                                                                                  757
                                                                                                                                                                                                                                                                                                                                                                                                                                                773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          986
                                                              429
                                                                                                                          489
                                                                                                                                                            528
                                                                                                                                                                                                                         588
                                                                                                                                                                                                                                                                                      647
                                                                                                                                                                                          544
                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            310 FVKILDTFEKLKDLFTELQKKIYVIEGTSKQDLTSFNMELSSSGISADLSRGHAVVGAVG
                                                                                                              EDPVSPIVLRLNFSL---VGTPLS--AFGN-----LRPVLAEDAQRLFTALFPFEKNCGN
                                                                                                                                                                                                                                                                                                                                                                                                                                    DNICQDDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LGNKLLLKANVTSENN-----MPRTNKTEFOLELPVKYAVYMVVTSHGVSTKYLNFTASEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |::||||| | ::||||| | 888 WGDSVELHANVTCNNEDSDELEDNSAFTI---IPILYPINILIQDQEDSTLYVSFTPKGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        932 TSRVMQHQYQV---SNLGQRSLP-ISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTK-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -ERLPSHSD--FLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1003 LERLPDAAEPCLPGALFRCPVV------FRQEILVQVIGTLELVGEIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DRLREGOIOSVVTYDLALDSGRPHSRAVFNETKNSTRROTOVLGLTQTCETLKLOLPNCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              818 TLQNQRSQRSWRLACES--ASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    834 ML---KPHSQIPVSCEELPEESRLLSRAL---SCNVSSPIFKAGHSVALQMMFNTLVNSS
                                                                                                                                                                             545 LEE--QGAVYIPNGRHG-GLSPQPSQRIEGTQVLSGIQWFGRSIHGVKDLEGDGLADVAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLL
                               SYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQH
                                                             370 AKDWAGGFLDLKADLQDDTFIGNEPLTPEVRAGYLGYTVTWLPSRQKTSLLASGAPRYQH
                                                                                                                                                                                                                         GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                                                      GAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVV-KGKEAGEVRVCLHVQKSTR
                                                                                              IGLVAMFR--QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQT
                                                                                                                                                           RGGQVSVCPLPRGQRARWQCDAV--LYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAR-1992 (Rel. 21, Created)
01-MAR-1992 (Rel. 21, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Integrin alpha-L precursor (Leukocyte adhesion glycoprotein LFA-1 alpha chain) (Leukocyte function associated molecule 1, alpha chain)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (CD11a).
ITGAL OR LFA-1.
Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LLALITAALYKLGFFKRQYKDMMSEG-GPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ITAL_MOUSE
                                                                                                                           430
                                                                                                                                                                                                                                                                                                                                                    648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1104
                                                                                                                                                                                          490
                                                                                                                                                                                                                                                                                                                                                                                                                                                  719
                                                                                                                                                                                                                                                                                                                                                                                   199
                                                                                                                                                                                                                                                                                                                                                                                                                  708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1103
                                                                                                                                                                                                                         529
                                                                                                                                                                                                                                                                                      589
                               355
                                                                                              413
                                                                                                                                                         471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P24063;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 6
ITAL MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                 용
                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                               ઠે
                                                           셤
                                                                                          ઠે
                                                                                                                                                         ઠ
                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                 ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ठ
         N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
N-LINKED (GLCNAC...) (FOTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -QQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLM 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HVFQANNFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVG 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LQGRPGFQECIKG----NVDLVFLFDGSMSLQPDEFQKILDFMKDVMKKLSNTSYQFAAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PIRLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLR---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 FNLDTENAMTFQ - - ENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1170;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ::
=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     209; Mismatches 463; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MW; 39A7AF92EF286FC0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>..</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 1536.5; DB 1
Pred. No. 6.9e-97;
   (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          128819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        401; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ..
=
=
:.
                                                                                                                                         1060
1071
954
89
1188
649
670
726
730
862
885
895
                                                                                                                                                                                                                                                     1111662
1111662
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
1111663
111166
                                                                                                                                                                                                                        Similarity
89
188
649
670
726
730
862
885
897
1060
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                      CONFLICT
CONFLICT
STRAND
STRAND
TURN
HELIX
TURN
STRAND
STRAND
HELIX
HELIX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            295
                                                                                                                                                                                                                                                                                                                                                                                                TURN
STRAND
HELIX
TURN
                                                                                                                                                                                                                                                                                                                                                                                                                                                             HELIX
TURN
TURN
STRAND
HELIX
TURN
STRAND
HELIX
TURN
HELIX
HELIX
HELIX
HELIX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HELIX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         URN
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

```
596
1115
77
126
199
705
773
856
1009
1048
86
185
270
                                                                                                                                                                                                444
668
696
724
728
857
880
890
927
1056
                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               473
CA BIND
SITE
DISULFID
DISULFID
                                                                                        DISULFID
DISULFID
DISULFID
DISULFID
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                        DISULFID
                                                                          DISULFID
                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                    CARBOHYD
 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its most by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                             SUBCELLULAR LOCATION: Type I membrane protein.
TISSUE SPECIFICITY: LEUKOCYTES.
DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDEGRIO PROTEASE CLEAVAGE.
SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
SIMILARITY: Contains I VWFA domain.
SIMILARITY: Contains 7 FG-GAP repeats.
                                        MEDLINE=91268576; PubMed=2051027;
Kaufmann Y., Tseng E., Springer T.A.;
"Cloning of the murine lymphocyte function-associated molecule-1
alpha-subunit and its expression in COS cells.";
                                                                                                                                                                                                                                                                                                                                 SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-L
ASSOCIATES WITH BETA-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRINTS; PRO118; INTEGRINA.
PRINTS; PRO118; INTEGRINA.
SMART; SM00191; Int_alpha; 5.
SMART; SM00327; VWA; 1.
PROSITE; PS05024; INTEGRIN ALPHA; 1.
Integrin; Call adhesion; Receptor; Glycoprotein; Transmembrane; Signal; Magnesium; Calcium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EXTRACELLULAR (POTENTIAL) POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INTEGRIN ALPHA-L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FG-GAP 1.
FG-GAP 2.
WFA.
FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HSSP, P20701; ILFA.
MGD; MGI:96665, Itgal.
MICEPPO: IPPR000413; Integrin_alpha.
InterPro: IPPR002035; VWF A.
Pfam; PF01839; FG-GAP; 3.
Pfam; PF001857; integrin_A; 1.
Pfam; PP00082; Vwa; 1.
                                                                                                                                     SEQUENCE OF 24-42.
MEDLINE=85188276; Pubmed=3887182;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; M60778; AAA39426.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23
1163
1084
1108
1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           454
                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1
24
24
1085
1109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         399
455
516
576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Repeat SIGNAL CHAIN DOMAIN TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REPEAT
CA_BIND
CA_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
REPEAT
DOMAIN
REPEAT
REPEAT
REPEAT
REPEAT
                                                                                                                    5
THE LEFT FITTER SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH SEARCH
```

```
36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     : | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | | : | : | | : | : | | : | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FRIHFTFKEF-QNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    297 FQANNFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LVAMFR - QNTGWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60 IRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120 KFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          199 CRIEFIFLDYVKONKONPOVLIGSVOPMFLLINIFRAINYVVAHVFKEESGARPDATKVLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LLTDGEKF--GDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQHIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            533 NRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAG-EVRVCLHVQKSTRDRLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 FNLDTENAMIFQENA-RGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 25.8%; Score 1516.5; DB 1; Length 1163; Best Local Similarity 33.9%; Pred. No. 1.6e-95; Matches 396; Conservative 216; Mismatches 466; Indels 89; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AA; 128343 MW; A7A3078489E8232F
                                                                                                                                                                                                                                                                                                                                                                                                              (GLCNAC.
(GLCNAC.
(GLCNAC.
(GLCNAC.
(GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GLCNAC
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ..
```

· -

```
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                       DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                    DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                             DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULPID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                          BIND
                                                                                                                                                                                                                                               Calcium
                                                                                                                                                                                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                                                                                                                                                 REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                          REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                       SIGNAL
                                                                                                                                                                                                                                                                       CHAIN
                                                                                                                                                                                                                                                                                                                                                                   RPEAT
                                                                                                                                                                                                                                                                                                                                                                                    REPEAT
                                                                                                                                                                                                                                                                                                                  REPEAT
                                                                                                                                                                                                                                                                                                                         EPEAT
                                                                                                                                                                                                                                                                CHAIN
1051 IVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITA 1110
                                                                                                                                                                                               831
                                                                                                                             881 LLKANVTSEN-NMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQ 939
                                                                                                                                                              888 ELNGTVHCENENSSLQEDNSAATHIPVLYPVNILTKEQENSTLYISFTPKGPKTQQVQHV 947
                EGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPV 711
                                                                                 --REFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQN 821
RVVVLSSRPVVDVVTELSFSPEEIPVHEVECSYSAREEQKHGVKLKACFRIKPLTPQ--F 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. THE ALPHA SUBUNIT IS COMPOSED OF AN HEAVY AND A LIGHT CHAINS LINKED BY A SUBUNIT IS COMPOSED OF AN HEAVY AND A LIGHT CHAINS LINKED BY A SUBULLIAL BEDND. ALPHA-E ASSOCIATES WITH BETA-7.
SUBCELLULAR LOCATION: Type I membrane protein.
DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A WHFA DOMAIN. INTEGRINS
                           ||| : ||||| | | || || | | : :|:|
SPINVSLNFSLLEBEGTPRDQKGRAMQPILRPSIHTV-TKEIPFEKNCGEDKKCEANLTL
                                                                                            SSPARS-----GPLRLMSSASLAVEWTLSNSGEDAYWVRLDLDFPRGLSFRKVEMLQ-
                                                                                                                                                                                                                      991 SHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLL
                                                 SPIVLRINFSLV - - - GTPLSAFGN - LRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSI
                                                                                                                   822 ORSORSWRLACESASSTEVSGAL-KSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKL
                                                                                                                                                                                    YQVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQ----VTFSENLSS----TCHTKE-RLP
                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
NCBI TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                               01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Integrin alpha-E precursor (Integrin alpha M290).
                                                                                                                                                                                                                                                                                                                                                  1167 AA.
                                                                                                                                                                                                                                                                                         1111 ALYKLGFFKRQYKDMM-SEGGPPGAEP 1136
                                                                                                                                                                                                                                                                                                         1106 ALYKVGFFKRNLKEKMEADGGVPNGSP 1132
                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                       1002 SSE---AEQPCLPGV---
                                                                                 TFSFMSLDCLVVGGP-
                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                            musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INTESTINAL WALL
                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                 ITAE MOUSE
                                                                                                                                                                                     940
                                                                                                                                                                                                                                                                       1047
                652
                                                                                 768
                                                                                                  780
                                                                 721
                                                                                                                                                                                                                                                                                                                                                        060677;
                                                                                                                                                                                                                                                                                                                                       ITAE_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                           Mus
                                                                                                                                                                                                g
                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                              8
                                                                                                                                                 ò
                                                                                                                                                               g
                                                                                                                                                                                ò
                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                     g
               ò
                              셤
                                                ò
                                                            g
                                                                                 ò
                                                                                                                  ò
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMB. outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                             PRINTS; PRO1185; INTEGRINA.
PRINTS; PR00453; VWFADOMAIN.
SMART; SM00191; Int alpha; 3.
SMART; SM00127; VWA; 1.
PR051TE; PS00242; INTEGRIN_ALPHA; 1.
PR05ITE; PS50234; VWPA; 1.
Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (POTENTIAL)
WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
-!- SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY
-!- SIMILARITY: COntains 1 WWFA domain.
-!- SIMILARITY: COntains 7 FG-GAP repeats.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INTEGRIN ALPHA-E.
INTEGRIN ALPHA-E LIGHT CHAIN
INTEGRIN ALPHA-E HEAVY CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               X-DOMAIN (EXTRA DOMAIN) VWFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          POTENTIAL. CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (ACIDIC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL.
GLU-RICH (ACIDI
GFFKR MOTIF.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCNA
N-LINKED (GLCNA
N-LINKED (GLCNA
N-LINKED (GLCNA
N-LINKED (GLCNA
N-LINKED (GLCNA
N-LINKED (GLCNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-LINKED
N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FG-GAP
                                                                                                                                                                                                                                                     HSSP; P11215; 1A8X.
MGD; MGI:1298377; Itgae.
Interpro; IPR0000413; Integrin_alpha.
Interpro; IPR002035; VWF A.
Pfam; PF01839; PG-GAP; 3.
                                                                                                                                                                                                                                                                                                                                           Pfam; PF00357; integrin_A; 1.
                                                                                                                                                                                                                                  EMBL; U12236; AAC52142.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Signal; Repeat; Magnesium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
1167
1114
11137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     164
754
820
898
1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1144
                                                                                                                                                                                                                                                                                                                                                                    Pfam; PF00092; vwa; 1.
```

Tue

```
ITAB_HUMAN
                                                                                                                                                                                                            유
                                                                                                                                   δ
                                                                                                                                                셤
                    ઠે
                                        셤
                                                            ઠે
                                                                           g
                                                                                             કે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  930
                                                      43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             870
                                                                                                                                                                                                                      249
                                                                                                                                                                                                                                                         309
                                                                                                                                                                                                                                                                          372
                                                                                                                                                                                                                                                                                                                                                  488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    760
                                                                                                          109
                                                                                                                                                                192
                                                                                                                                                                                  189
                                                                                                                                                                                                    252
                                                                                                                                                                                                                                      312
                                                                                                                                                                                                                                                                                             367
                                                                                                                                                                                                                                                                                                              429
                                                                                                                                                                                                                                                                                                                                 425
                                                                                                                                                                                                                                                                                                                                                                    482
                                                                                                                                                                                                                                                                                                                                                                                     547
                                                                                                                                                                                                                                                                                                                                                                                                        536
                                                                                                                                                                                                                                                                                                                                                                                                                         909
                                                                                                                                                                                                                                                                                                                                                                                                                                           596
                                                                                                                                                                                                                                                                                                                                                                                                                                                             665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   969
                                                                                                                            132
                                                                                                                                              131
                                                                       22
                                                                                       74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKS----TRDRLREG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ETLKLOLPNCI EDPVSPI VLRLNFSLVGTPLSAFGNLR----PVLAEDAQRLFTALF--P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LSYRKVSTLQNQRSQRSWRLACESASSTEVSGALKSTSCSINHPIPPENSEVTFNITFDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOPKKI-----QKPVSpDVQCDDPKPV---ASVLVMNCKIGHPIL-KRSSVNVSVTWQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FERNICGNDNICQDDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASE
                                                                                                                                                                                                                                                                                                                                                                              -EEDAFVRRIEGEGMGSYFGSVLCPVDIDMDGTTDFLLVAAAPFYHIRGEEGRVYVYQVPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -----DALPMVFIGKM--DVNLCFEVDSSVVASEPGLREM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | :| | | | | : : | :| | | STEEL----CEEDCFSNITIKVTYE-----FQTSGGRRDYPNPTL--DHYKEPSAIFQLP
                                                                        FNLDTENA--MTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGS-----LYQCDY
                                                                                  STGSCEPIRLOVPVEAVMMSLGLSLAATT -- SPPQLLAC-GPTVHQTCSENTYVKGLCFL
                                                                                                                      133 LTPNLDLQAQAYFSDLEGFLDPGAHVDSGDYCRSKGGSTGEEKKSARRRTVEEEDEEED
                                                                                                                                                                                  DSDIAFLIDGSGSIIPHPFRRMKELVSTIMEQL--KKSKTLFSLMQYSEEFRIHFTFKEF
                                                                                                                                                                                             QNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLLTDGEKFGDP
                                                                                                                                                                                                                               :: :: | |: :||| || || || RDINASLAKVQSIVQVKEVTKTASAMQHVLDNIFIPSRGSRKKALKVMVVLTDGDIFGDP
                                                                                                                                                                                                                                                          LGYEDVI PELDREGVI RYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQANNFEALKTVQ
                                                                                                                                                                                                                                                                   NOLREKIFAIEGTOTGSSSSFEHEMSQEGFSAAITSNGP-LLSTVGSYDWAGGVFLY-TS
                                                                                                                                                                                                                                                                                                        SKLQQRIVHMEGT---VGDALQYQLAQTGFSAQILDKGQVLLGTVGAFNWSGGALLYSTQ
                                                                                                                                                                                                                                                                                                                                 368 KEKSTFINMT-RVDS-DMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGM
                                                                                                                                                                                                                                                                                                                                            WESNA - - - NVKGTQIGAY FGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPR
                                                                                                                                                                                                                                                                                                                                                                                                        GORARWOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAP-----GEEDNRGA
                                                                                                                                                                                                                                                                                                                                                                                                                  -QDASFSLAHTLSGHPGLTNSRFGFAMAAVGDINQDKFTDVAIGAPLEGFGAGDGASYGS
                                                                                                                                                                                                                                                                                                                                                                                                                                           VYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                      -----TKQRQRLQCEDSSGCQSCLRKWNGGSFLCEHFWLI
                                                      Gaps
N-LINKED (GLCNAC. . .) (POTENTIAL)
N-LINKED (GLCNAC. . .) (POTENTIAL)
MW; B8331C115DCCCFFD CRC64;
                                    Length 1167;
                                                      205;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTC-----
                                                     462; Indels
                                    DB 1;
                                  | Score 1136.5; DB | Pred. No. 1.6e-69; 213; Mismatches 462
1055 1055
1086 1086
1167 AA; 128983
                                                                                                                                               FGSNLROOPOKFPEALRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LRSRPVVDLTVSMTFTP
                                             28.6%
                                     19.3%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FLNFTVDVDV-----
                                                       Conservative
                                            Best Local Similarity
Matches 353; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                           548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  871
                                                                                                                                                                                                                                                                                                                                                                                       489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               811
CARBOHYD
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                           313
                                                                                         20
                                                                                                                                                                                                     193
                                                                                                                                                                                                                                         253
                                                                                                                                                                                                                                                           250
                                                                                                                                                                                                                                                                                              310
                                                                                                                                                                                                                                                                                                                373
                                                                                                                                                                                                                                                                                                                                                                      426
                                                                                                                                                                                                                                                                                                                                                                                                         483
                                                                                                                                                                                                                                                                                                                                                                                                                                             537
                                                                                                           53
                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                     임
                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
 FT
                                                                        ò
                                                                                      g
                                                                                                           ò
                                                                                                                           a
                                                                                                                                              ò
                                                                                                                                                            g
                                                                                                                                                                                  ò
                                                                                                                                                                                                  유
                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                       6 6 6 6 6
                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                õ
```

```
1045
                                                                                                                                                                                                                                   SPSDHKEFFFNVHGENLFGAVFQLQICVPIKLQDF-----QIVRVKNLTKTQDHTECTQ 1025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HTKQLLRDVSELPILGEISFNKSLYEGLNAE-----NHRTKITVIFLKEEETRSLPLII 1119
                                                                                                                                                  985
EESVPPNRTADITVTISNSNEKSLARETR---SLOFRHAFIAVLSR--PSVMYMN--TSQ 971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B-CADHERIN. IT
TO EPITHELIAL
                                                                                                                                                  NTSRVMQHQYQVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSST----CHT
                                                                                                                                                                                                                                                                                                                                              KERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTS
                                                                                                                                                                                                                                                                                                                                                                                                          : | | : | | : . - - - TSNKENVTVAAEISVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HNHLLIVSTA-----EILFNDSVFTLLPGQGAFVRSQTETKVEPF----EVPNPLPLIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE=Fetal kidney;
MEDLINE=20138496; PubMed=10673275;
Touchman J.W., Anikster Y., Dietrich N.L., Maduro V.V., McDowell G.,
Shotelersuk V., Bouffard G.G., Beckstrom-Sternberg S.M., Gahl W.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ш
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 [4]
MUTAGENESIS OF ASP-109 AND PHE-316.
MEDLINE=20400502; PubMed=10837471;
Higgins J.M.H., Cernadas M., Tan K., Irie A., Wang J.-H., Takada Brenner M.B.;
"The role of alpha and beta chains in ligand recognition by beta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. THE ALPH SUBUNIT IS COMPOSED OF AN HEAVY AND A LIGHT CHAINS LINKED BY DISULPIDE BOND. ALPHA-E ASSOCIATES WITH BETA-7.
SUBCELLULAR LOCATION: Type I membrane protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                antigen) (HML-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUELCE FROM N.A., AND SEQUENCE OF 19-38 AND 179-188.
TISSUE=Leukemia, and Lymphocytes;
MEDINE=9416962; PubMed=8119947;
Shaw S.K., Cepek K.L., Murphy E.A., Russell G.J., Brenner M.B.
Parker C.M.;
"Molecular cloning of the human mucosal lymphocyte integrin al
subunit. Unusual structure and restricted RNA distribution.";
J. Biol. Chem. 269:6016-6025(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Green B.D.;
"The genomic region encompassing the nephropathic cystinosis g (CTNS): complete sequencing of a 200-kb segment and discovery novel gene within the common cystinosis-causing deletion."; Genome Res. 10:165-173(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Butele
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  integrins.",
J. Biol. Chem. 275:25654 (2000).
J. Biol. Chem. 275:25652-25664 (2000).
-!- FUNCTION: INTEGRIN ALPHA-E/BETA-7 IS A RECEPTOR FOR MEDIATES ADHESION OF INTRA-EPITHELIAL T-LYMPHOCYTES CELL MONOLAYERS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Page 10 Opposite the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     to the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1179 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SQEPACGSDPVQHVKEWHSVVCAI----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 53-1179 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (MAR-1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 [2]
REVISIONS TO 88-114.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Parker C.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ITAE HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Green B.D.
                                                                                                                                                                                                                                                                                                                                                        986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1120
                                                                                                                                                            931
```

```
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                            REPEAT
REPEAT
CA BIND
CA BIND
CA BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                 REPEAT
REPEAT
DOMAIN
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
SOLUTION OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE STATES OF THE 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1073
                                                                                                                                                                                                                                 1028
                                                                                                                                                                                                                                                                                                                                                  :| : |: | : | : | : | : | 125
                                                                                                                                                                                                                                                                978 NLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLS 1037
                                                                                                                                                                                                                                                                                                                               ----AEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPL 1091
                                                                                                                                      919
                                                                           998
                                                                                                                                                                     983
                                                                                                                                                                                                  977
              ALFPFEKNCGNDNICQDDUSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFF 806
                                             873
                                                                                                        923
                                  PPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGALKSTSCSINHPIPPENSEVTFNI
                                                                                              867 TFDVDSKASLGNKLLLKANVTSENN----MPRTNKTEFQ---LELPVKYAVYMVVTSHGV
                                                                                                                                                        924 VWQLBENAFPNRTADITVIVINSNERRSLANETHTLQFRHGFVAVLSKPSIMYVNTGQGL
                                                                                                                                                                                                  S--TKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSE
                                                                                                                                                                                                                         1029 ASTVCTWSQERACAYSS-VQHVEEWHSVSCVIA------SDKENVTVAAEIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last |sequence update)
15.5EP-2003 (Rel. 42, Last |amnotation update)
Integrin alpha-1 (Laminin and collagen receptor) (VLA-1) (CD49a)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MIM; 192968; -. Gintegrin complex; TAS. GO: 0008305; C:integrin complex; TAS. GO: 0008305; F:cell adhesion receptor activity; NAS. GO: GO: 0005518; F:cellagen binding activity; TAS. GO: GO: 00005518; F:cellagen binding activity; TAS. Integrin alpha: InterPro; IPR000413; Integrin_alpha.
                                                                                                                                                                                                                                                                                                                                                                                                               PLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1151 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
MEDLINE=93155124; PubMed=8428973;
                                                                                                                                                                                                                                                                                                                                FDWYIKTSHNHLLIVST-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genew; HGNC:6134; ITGAl.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PIR; A45226; A45226.
PDB; 1QC5; 17-MAY-00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MIM; 192968; -GO; GO: 0008305
GO; GO: 0004895
GO; GO: 0005518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ITA1 HUMAN
P56199;
                                                                                                                                                                                                                                                                                                                                1038
                                                                                                                                                                                                                                                                                                                                                                                              1092
                                                                            807
                                                                                                                                                                                                      920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TA1 HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ITGAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                          셤
                                                                           ò
                                                                                                     g
                                                                                                                                    ò
                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                          ò
```

```
44,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     57 CEP-IRLQVPVEA-----VNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGL 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 FNVDVKNSMTFSGPVEDMFGYTVQQYENEEGKMVLIGSPLVGQPKNRTGDVYKCPVGRGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 FNLDTENAMIFQENARG-FGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQCDYSTGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       al Similarity 27.6%; Pred. No. 4.96-66; 342; Conservative 209; Mismatches 488; Indels 201;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 1; Length 1151;
                                                                                                                                                                            PROSITE; PSO242; INTEGRIN_ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6B3F3C1AABF52808 CRC64;
                                                                                                                                                                                                                                                                                          EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                          CYTOPLASMIC (POTENTIAL).
FG-GAP 1.
FG-GAP 2.
WWFA.
FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 6.
FG-GAP 7.
POTENTIAL.
POTENTIAL.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18.5%; Score 1085.5;
                                                                                                                                                                                                                                                                   Repeat; Calcium; Magnesium; 3D-structure
DOMAIN 1 1113 EXTRACELLUL
                                                                                                                                                                                                                                                                                                                         POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AA; 127837 MW;
FG-GAP; 3.
integrin_A; 1.
                                                                PRINTS; PRO1185; INTECRINA.
PRINTS; PR00453; VWFADOMAIN.
SMART; SM00191; Int_alpha; 5.
SMART; SM00327; VWA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   858
1034
1044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      938
946
980
1045
1074
1151
                            Pfam; PF00357;
Pfam; PF00092;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                   TRANSMEM
```

```
LPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQE---------FFNA 1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MITSTD---HLKRGTILDCNTCKFATITCNLTSSDISQVNVSLILWKPTFIKSYFSSLNL 1075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ----- QKRELAIQISKDGLPGR 1111
                                                                                                                                   389
                                                                                                                                                                                                                                                                   409
                                                                                                                                                                                                                                                                                                448
                                                                                                                                                                                                                                                                                                                            469
                                                                                                                                                                                                                                                                                                                                                        492
                                                                                                                                                                                                                                                                                                                                                                                                                                               588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CFLFGSNLRQQPQKFPEAURGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKK 166
                                                                                                                                                                                             STEKFVEEIKSIASEPTEKHFFNVSDELALVTIVKTLGERIFALEATADQSAASFEMEMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            T-DPENG----PVLDDSLPNSVHEYIPFAKDCGNKEKCISDLSLHVATTEKDLLIVRSQ
                CSDVSPTFQVVNSIAP--VQECSTQ-LDIVIVLDGSNSIYPWD----SVTAFLNDLLKR
                                                                                                                                                                                                                                                           OTGESAHYSQDWYMLGAVGAYDWNGTVVMQKASQIIIPRNTTFNVBSTKKNBPL-ASYLG
                                                                                                                                                                                                                                                                                                               GALKSTSCSINHPIFPEN$EVTFNITFDVDSKASLGN-KLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNP
                                                                                                                  ELFNITNGARKNAFKILFÜLTDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFR----
                                                                                                                                                                                                                                     QEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKE----KSTF-INMTRVDSDMNDAYLG
                                                                                                                                                                                                                                                                                                                                                        -----YEQTR-GGQVSVCPLPRGQRARWQCDA
                                                                                                                                                                                                                                                                                                                                                                            CTTENKNEPCGARFGTALAAVKDLNLDGFNDIVIGAPLEDDHGGAVYIYHG-SGKTIRKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         589 YAQRIPSGGDGKTLKFFGQSIHGEMDLNGDGLTDVTIGGLGGAALFWSRDVAVVKVTMNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NPREVARNVFECNDQVVKGKEAG -- EVRVCLHVQ - KSTRDRLREGQIQSVVTYDLALDSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VGTPLSAFGNLRPVLAEDÅQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RE-FNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ---HNITCKVGYPFLRRGEMYTFKILFQFNTSYLMENVTIYLSATSDSEEPPETLSDNVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LVPVRLNQTVIWDRPQVTFSENLSSTCHTKE------R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           970 PELKLSISFPNMTSNGYPVLYPTGLSS-----SENANCRPHIFEDPFSINSGKK
                                                         ----SKTLFSLMQYSEEPRIHFTFKEFQNNPNPRSLIKPITQLLGR-THTATGLRKVVR
                                                                                    MDIGPKQTQVGIVQYGENVTHEFNLNKYSSTEEVLVAAKKIVQRGGRQTMTALGTDTARK
                                                                                                                                                                            -SEKSRQELNTVASKPPRDHVFQANNFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMS
                                                                                                                                                                                                                                                                                              YAAAIILRNRVQSL-VLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSV
                                                                                                                                                                                                                                                                                                                                                                                                                  493 VLYGEQGQPWG-RFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HSQRIAGSKLSPRLQYFG@SLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RPHSRAVFNET-----KNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NDKFNVSLTVKNTKDSAYNTRIVHYSPNLVFSGIEAIQKD-----SCESN-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN-----LGQRS----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1091 LPL--IVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TIRGEL-----RSENASLVLSSSN----
                                                                                                                                                                                                                                                                                                                                                        DVDSNGSTDLVLIGAPHY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 --LPISLVF-----
                                                                                    172
                                                                                                                                                                                                                                                                                              390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1031
                                                         167
                                                                                                                221
                                                                                                                                               232
                                                                                                                                                                            277
                                                                                                                                                                                                        291
                                                                                                                                                                                                                                     336
                                                                                                                                                                                                                                                                   351
                                                                                                                                                                                                                                                                                                                            410
                                                                                                                                                                                                                                                                                                                                                        449
                                                                                                                                                                                                                                                                                                                                                                                     470
                                                                                                                                                                                                                                                                                                                                                                                                                                               530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               950
                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                               gg
                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  원 상 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                    셤
                                                     ò
                                                                                 g
                                                                                                               ò
                                                                                                                                       셤
                                                                                                                                                                           ઠે
                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/annonnoe/
                                                                                                                                                                                                                                                                  Lehnert K., Ni J., Lehng E., Gough S.M., Weaver A., Yao W.P., Liu D., Wang S.-X., Morris C.M., Krissansen G.W.; "Cloning, sequence analysis, and chromosomal localization of the novel human integrin alphali subunit (ITGA11).";
                                                                                                                                                                                                                                                                                                                                                           TISSUE=Fetal muscle, and Uterus;
MEDILINE=99395147; PubMed=10464311;
WEDLING T., Kusche-Gullberg M., Sejersen T., Gullberg D.;
"CDNA Cloning and Chromosomal Localization of Human alpha(11)
Integrin. A collagen-binding, i domain-containing, beta(1)-associated integrin alpha-chain present in muscle tissues.";
J. Biol. Chem. 274:25735-25742(1999).
                                                                                                                                                                              Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
40, Last sequence update)
41, Last annotation update)
                                                                           Ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; 604789; -.
GO:0008305; C:integrin complex; TAS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                            and Osteoblast;
                                                                                                                                                                                                                                                       MEDLINE=99417678; PubMed=10486209;
                                                                                      O9UKX5; Q9UKQ1;
16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last seq
28-FEB-2003 (Rel. 41, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; AF109681; AAF01258.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 954-1188 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AF137378; AAD51919.2;
AL359064; CAB94392.1;
P17301; 1AOX.
                                                                                                                                         integrin alpha-11 precursor.
                                                                                                                                                                                                                                                                                                                       Genomics 60:179-187(1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genew, HGNC:6136; ITGAll.
MIM, 604789; --
GO; GO:0008305; C:integri
                                                                                                                                                                  Homo sapiens (Human)
                                                                                                                                                                                                                                               TISSUE=Fetal heart,
                                                                                                                                                                                                                              FROM N.A.
                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=Fibroblast
                                                                                                                                                                                                    NCBI_TaxID=9606;
                                                                           HUMAN
                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                       [TGA11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HSSP;
             셤
```

```
941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          768
                                                                                                                                                                                          166
                                                                                                                                                                                                                                                                                                                                                                              224
                                                                                                                                                                                                                                                                                                                                                                                                                                  255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      --KGGRKGAKKVMIVITDGESHDSP-DLEKVIQQSERDNVTRYAVAVLGYYNRRGINPET 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   395 ILRNRV-QSLVLGAPRYQHIGLVAMF-RQNTGMWESNANVKGTQIGAYFGASLCSVDVDS 452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     453 NGSTDLVLIGAPHYYEQTR-GGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTV 511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              762 MLDDGWPTTLRVSVPFWNGCNEDEHCVPDLVLDARSDLPTAMEYCQRVLRKPAQDCSAYT 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      769 FSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSW 828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              942 VSNLGQ----RSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTC----HTKERLPSHSD 994
                                                                                               82
                                           26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 :| : | | : : | | : : | | : : | | : : | | | : : | | | : : | | | : : | | | : : | | | | : : : | | | | : : : | | | | : : : | | | | : : : | | | | : : : | | | | : : : | | | | : : : | | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | | : : : | | : | | : : | | : : : | | : : : | | : : | | : : | | : : | | : : | | : : | | : : | | : | : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | | : : | | : : | | : : | | | : : | | : : | | | : : | | : : | | | : : | | : : | | | : : | | : : | | | : : | | | : : | | | : : | | | : : | | | : : | | | : : | | | : : | | | : : | | | : : | | | : : | | | : : | | : : | | | : : | | : : | | | : : | | | : : | | | : : | | | : : | | | : : | | | : : | | | : : | | | : : | | | | : : | | | | : : | | | | : : | | | | : : | | | | : : | | | | : : | | | | : : | | | | : : | | | | : : | | | | : : | | | | : : | | | | : : | | | | : : | | | | : : | | | | : : | | | : : | | | : : | | | | : : | | | : : | | | : : | | | : : | | | : : | | | : : | | | : : | | | : : | | | : : | | | : : | | : : | | | : : | | : | | : : | | : | | : : | | | : : | | : | | : : | | : | | : : | | : : | | : | : | | : | : |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVF - - ECNDQVVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GKEAGEVRVCL------HVQKSTRDRLREGQIQSVVTYDLALDSGRPHSRAVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    : | : | : | : : | : : | : : | | : : | | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ENNMPRINKTE -- FOLELPVKYAVYMVVTSHGVSTKY ---LNFTAS -- ENTSRVMQHQYQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      829 RLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTS
                                        FNLDTENAMTFQENARG-FGQSVVQ--LQGSR-VVVGAPQEIVAANQRGSLYQCDYSTGS
                                                                                               FNMDTRKPRVI PGSRTAFFGYTVQQHDI SGNKMLVVGAPLETNGYQKTGDVYKCPVIHGN
                                                                                                                                                       CEPIRL - - - - - QVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLF
                                                                                                                                                                                                                                                                                               143 NSNFRFSKTVAP-ALQRC-QTYMDIVIVLDGSNSIYP----WWEVQHFLINILKKFYIG
                                                                                                                                                                                                                                                                                                                                                                              -SKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLG-RTHTATGLRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         225 ITNGARKNAPKILPLLTDGEKFGDPLGYEDVIPELDREGVIRY---VLGPGD--AFRSEK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SRQELNTVASKPPRDHVFQANNFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SAAITSNGPLLSTVGSYDWAGGVFLYTSKEK----STFINMTRVDSDMNDAYLGYAAAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               677 NETKNS-TRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLRP
                                                                                                                                                                                                                                                                  111 GSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKK----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             822 LSFDTTVFIIESTRQRVAVEATLENRGENAYSTVLNISQSANLQF--ASLIQKEDSDGS-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             736 VLAEDAQRLFTALFPFEKNCGNDNICQDDL-----
                                                                                                                                                       57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     992
                                                                                                                                                                                                                                                                                                                                                                              167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                       셤
                                                                                                                                                       ઠ
                                                                                                                                                                                            용
                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                              음
                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           કે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઢ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ď.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
RGO; GO:0004895; F:cell adheelon receptor activity; TAS.
RO; GO:0005518; F:cellagen binding activity; TAS.
RO; GO:0007160; P:cell-matrix adhesion; TAS.
RO; GO:0007517; P:muscle development; TAS.
RO; GO:0007517; P:muscle development; TAS.
RINTERPO; IPRO00413; INTEGRINA.
RINTERPO; PRO0189; RG-GAP; 3.
RPRINTS; PRO0189; WAY; INTEGRINA.
RRINTS; PRO0191; INTEGRINA.
RRART; SMO0191; INTEGRINA.
RRART; SMO0191; INTEGRINA.
RRART; SMO0191; INTEGRINA.
RRART; SMO0191; INTEGRINA.
RRART; RROSITE; PSO0242; INTEGRINA.
RRART; RROSITE; PSO0242; INTEGRINA.
RRART; RROSITE; PSO0242; INTEGRINA.
RRART; RROSITE; PSO0242; INTEGRINA.
RRART; RROSITE; PSO0242; INTEGRINA.
RRART; RROSITE; PSO0242; INTEGRINA.
RRART; RROSITE; PSO0242; INTEGRINA.
RRART; RROSITE; PSO0242; INTEGRINA.
RRART; RROSITE; PSO0242; INTEGRINA.
RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART; RRART;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 1079.5; DB 1; Length 1189;
Pred. No. 1.3e-65;
212; Mismatches 501; Indels 173;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'FTId=VAR 009894.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INTEGRIN ALPHA-11.
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POTENTIAL.
CYTOPLASMIC (POTENTIAL).
FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GLCNAC. . .)
(GLCNAC. . .)
(GLCNAC. . .)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GLCNAC. .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            / -> M.
/FTId=VAR_009889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FTId=VAR_009891.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FTIG=VAR_009892.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FTIG=VAR_009893.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FTIG=VAR_009890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             POTENTIAL.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VWFA.
FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
POLY-LEU.
POLY-ARG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ·-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MW.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ВХ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ВУ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1189 AA; 133609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 28.3%;
Matches 349; Conservative 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1189
1142
1165
1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      496
559
621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1032
1040
433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                973
1032
1040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REPEAT
DOMAIN
CA BIND
CA BIND
CA BIND
DISULID
DISULED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHAIN
DOMAIN
DOMAIN
BEPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VARIANT
```

```
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch)
                --EDERRAPQLMHSNSDVVSINCNIRLVP-NQEINFHLIGNL---WLRSLKALKYKSMKI 1104
FLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWY----IKTSHNHL 1049
                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=94193647; Pubbed=7511592; MEDLINE=94193647; Pubbed=7511592; MEDLINE=94193647; Pubbed=7511592; MEDLINE=94193647; Pubbed=7511592; MEDLINE=94193647; Pubbed=1511592; MEDLINE=94193647; Pubbed=161934].

J. Biol. Chem. 269:9559-9663[1994].

-1- FUNCTION: INTEGRIN ALPHA-2/BETA-1 IS A RECEPTOR FOR LAMININ, COLLAGEN, COLLAGEN C-PROPEPTIDES, FIBRONECTIN AND E-CADHERIN. IT RECOGNIZES THE PROLINE-HYDROXYLATED SEQUENCE G-F-P-G-E-R IN COLLAGEN. IT IS RESPONSIBLE FOR ADHESION OF PLATELETS AND OTHER CELLS TO COLLAGENS, MODULATION OF COLLAGEN AND COLLAGENSE GENE EXPRESSION, FORCE GENERATION AND ORGANIZATION OF NEWLY SYNTHESIZED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EXTRACELLULAR MATRIX.
SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-2
ASSOCIATES WITH BETA-1.
SUBCELLULAR LOCATION: Type I membrane protein.
DOWAIN: THE INTEGRIN I-DOWAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOWAINS DO NOT UNDERGO PROTEASE CLENVAGE.
SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
SIMILARITY: Contains I VWFA domain.
SIMILARITY: Contains 7 FG-GAP repeats.
                                                                      ---IFREEDPSRQIVFEISRQEDWQVPIWIIVGSTLGGLL
                                                      LIVSTABILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPN-----PLPLIVGSSVGGLL
                                                                                                                                                                                                                                     01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Integrin alpha-2 precursor (Platelet membrane glycoprotein Ia) (GPIa)
(Collagen receptor) (VLA-2 alpha chain) (CD49b) (Fragment).
                                                                                                                                                                                                                                                                                                                                     Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Cetartiodactyla, Ruminantia, Pecora, Bovoidea,
Bovidae, Bovinae, Bos.
                                                                                                                          LLALITAALYKLGFFK--RQYKDMMSEGGPPGAEP 1136
                                                                                                                                                                                                            PRT; 1170 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; L25886; AAB59255.1; - 145914; L45914; L45914; L45914. IASP. F17301; LAOX. Interpro; IPR000413; Integrin_alpha. Interpro; IPR002035; VWF.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pfam; PF00092; vwa; 1.
PRINTS; PR01185; INTEGRINA.
PRINTS; PR0453; VWFADOMAIN
SMART; SM00191; Int alpha; 5.
SWART; SM00127; VWA; 1.
PROSITE; PS00242; INTEGRIN AL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam, PF01839; FG-GAP, 3.
Pfam, PF00357, integrin A,
Pfam, PF00092; vwa, 1.
                                                                        HVNAALQRQFH-SPF-
                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                            Bos taurus (Bovine).
                                                                                                                                                                                                            BOVIN
                       1021
                                                                               1105
                                                                                                           1104
                                                                                                                                                                                                            ITA2 BOY
P53710;
                                                                                                                                                                                RESULT 11
                                                                              g
                                                                                                           ò
                                                                                                                                                                                                                           ઠે
                                                      ઠે
```

```
48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 108 FLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLK-- 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            139 SDVSPDF-ÖLRTSFAPAVOTCP-SFIDVVVVCDESNSIYPWD--AVKNFLEKFVQGLDIG 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                337 EGFSAAIT--SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT--RVDSDMN-DAYLGYA 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 55 GSCEPIRLQ-----VPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          166 KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLL----GRTHTATGLRKVVRE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 222 LFNITNGARKNAFKILFLLTDGEKFGDPLGYEDVIPELDREGVIRY---VLGF--GDAFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 FNLDTENAMTFQ-ENARGFGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQC--DYST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      195 PTKTQMGLIQYANNPRVVFNLNTFKSKD---EMIKATSQTFQYGGDLTNTFKAIQYARDT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEKSRQELNTVASKPPRDHVFQANNFEALKTVQNQLREKIPAIEGTQTGSSSSFEHEMSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
Cell adhesion; Receptor; Glycoprotein; Transmembrane; Signal; Repeat; Polymorphism; Calcium; Magnesium.
                                                                                                                                                                                                                                                                          SITE (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18.2%; Score 1071; DB 1; Length 1170;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             128929 MW; EECEFICSF2448FB1 CRC64;
                                                       INTEGRIN ALPHA-2.
EXTRACELLULAR (POTENTIAL)
                                                                                   POTENTIAL. CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 27.5%; Pred. No. 5e-65;
Matches 334; Conservative 218; Mismatches 495;
                                                                                                                                                                                                                             POTENTIAL.
POTENTIAL.
POTENTIAL.
CELL ATTACHMENT S
                                                                                                                                                                                                                                                                                                                                                                                         (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                     (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GLCNAC
                                                                                                                                                                                                                                                                                                BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINED (GLCN.
N-LINED (GLCN.
N-LINED (GLCN.
N-LINED (GLCN.
N-LINED (GLCN.
N-LINED (GLCN.
N-LINED (GLCN.
N-LINED (GLCN.
N-LINED (GLCN.
N-LINED (GLCN.
N-LINED (GLCN.
N-LINED (GLCN.
N-LINED (GLCN.
N-LINED (GLCN.
N-LINED (GLCN.
N-LINED (GLCN.
N-LINED (GLCN.
N-LINED (GLCN.
N-LINED (GLCN.
                                                                                                                                                                                                                                                                                       GFFKR MOTIF
                                                                                                              FG-GAP 1.
FG-GAP 2.
                                                                                                                                                       FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1063
1070
580
588
                                                                                                                                                                                                                                                                                                                                                                                                                                 421
449
464
688
                                                                                                                                                                    475
538
                                                                                                                                         367
                                                                                                                                                                                                                                                          624
474
1150
1150
726
784
865
1039
1049
101
332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1170 AA;
Integrin; OPlatelet; ON TER SIGNAL
                                                       CHAIN
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                                                                                                    DISULFID
                                                                                                                                                                                                                                                                                                                                                            DISULFID
                                                                                                                                                                                                                                                                                                                                                                             DISULFID
                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                REPEAT
CA BIND
CA BIND
CA BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VARIANT
                                                                                                                                                        REPEAT
REPEAT
                                                                                                 DOMAIN
                                                                                                                             REPEAT
                                                                                                                                                                                     REPEAT
                                                                                                                                                                                                  REPEAT
```

```
FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        485
548
612
496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Integrin; (Platelet; SIGNAL CHAIN COMAIN TRANSMEM DOMAIN REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REPEAT
CA_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REPEAT
DOMAIN
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REPEAT
1057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ::| | | : | | | : | | | | : | | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | | : | | : | : | | : | : | | : | : | | : | : | | : | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -----SVIIHIPQYTKDKNPLMYLTGVHTDQAGDISCEAEINPLKIGQTSSSVSFKSEN 1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1031 FRHIKELNCRTASCSNIMCWLRDLQVKGEYFLNVSTRIWNGTFAASTFQTVQLTAAAEID 1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     966
                                                                                                                                                                                                                                                                                                                                                                                                                              756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             923
                                     445
                                                                                                       503
                                                                                                                                          541
                                                                                                                                                                            561
                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                  621
                                                                                                                                                                                                                                                                                   658
                                                                                                                                                                                                                                                                                                                     677
                                                                                                                                                                                                                                                                                                                                             733
 VGFSAEYSPQNNILMLGAVGAYDWSGTVVQKTPHGHLIFSKQAFEQILQDRNHSSYLGYS 429
                                                                                                                                                                                                                                                                                                                      ECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALD----SGRPHSRAVFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 909 AVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQR-----SLPISLVFLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DAEIHIT-RSTNINFYEVSLDGNVSSVV-HSFE--DIGPKFIFSIKVTTGSVPVSMA---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASST-EVSGALKSTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SSHLQYFGRSLDGYGDLNGDSITDVSVGAFGQVVQLWSQSIADVSVDASFTPKKI--TLL
                                                                                                                                                                                                                                                                                                                                                                                           ETKNSTRRQTQVLGLTQTCE - - TLKLQLPNCIEDPVSPIVLRLNFSL - - VGTPLSAFGNL
                                                                                                                                                                                                                                                                                                                                                                                                               ENNERCLOKTMIVSQAQRCSEYIHIQEPS---DIISPLNLCMNISLENPGT------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PVRLNQTVIWDRPQVTFSEN---LSSTCHTKE--------RLPSHSDFLAE-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEI-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LFNDSVFTL------LPGQGAFVRSQTETKVEPFE-VPNPLPLIVGSSVGGLLLLALITA
                                   AAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANV-----KGTQIGAYFGASL
                                                                  VASISTGNSVHFVAGAPRANYTGQIVLYSVN----ENGNVTVIQSQRGDQIGSYFGSVL
                                                                                                         CSVDVDSNGSTDLVLIGAPHYYEQTR - - GGQVSVCPLPRGQRARWQCDAVLYGEQGPWG
                                                                                                                             RFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGS--KL
                                                                                                                                                                                                                                                SPRLOYFGOSLSGGODLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMBFNPREVARNVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RPVLAEDAQRLFTALFPFEXNCGNDNICQDDLSITF----SFMSLDCLVVGGPREFNVTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      glycoprotein Ia) (GPIa)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae; Mus.
NCBI_TaxID=10090,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1TA2 MOUSE STANDARD; PRT; 1178 AA. 062469; O62163; 15-JUL-1998 (Rel. 36, Last sequence update) 28-FEB-2003 (Rel. 41, Last annotation update) Integrin alpha-2 precursor (Platelet membrane g (Coliegen receptor) (VLA-2 alpha chain) (CD49b) ITGA2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYNPOIYVIEENTVTIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | : | | | | | | | : | : | ILWKLGFFKRKYEKM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1111 ALYKLGFFKRQYKDM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus (Mouse)
 370
                                                                                                                                                                            504
                                                                                                                                                                                                                                                                                                                                                        629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1091
                                     392
                                                                                                         446
                                                                                                                                                                                                               542
                                                                                                                                                                                                                                                  562
                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                      622
                                                                                                                                                                                                                                                                                                                                                                                           678
                                                                                                                                                                                                                                                                                                                                                                                                                              708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 12
ITA2_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                     ò
                                                                                                                                   셤
                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                  ठे
                                                                                                                                                                                                                                                                                                                   ò
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the ENBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A interpro; IPRO020JJ; ...
R Pfam; PF01839; FG-GAP; 3.
R Pfam; PF01839; FG-GAP; 3.
R Pfam; PF001857; integrin_A; 1.
R Pfam; PF00185; vwa: 1.
DR RINTS; PR01485; INTEGRIN.
DR RINTS; PR00453; vwFADOMAIN.
DR SMART; SW00191; Int alpha; 4.
DR SMART; SW00191; Int alpha; 4.
DR ROSITE; PS00242; VWFA; 1.
DR PROSITE; PS50234; VWFA; 1.
DR PROSITE; PS50234; VWFA; 1.
DR PROSITE; PS50234; VWFA; 1.
DR PROSITE; PS50234; VWFA; 1.
DR PROSITE; PS50234; VWFA; 1.
DR PROSITE; PS50234; VWFA; 1.
DR PROSITE; PS50234; VWFA; 1.
STRAIN=CS7BL/6 X CBA; TISSUE=Lung;
MEDLINE=94363406; PubMed=8081889;
Edelman J.M., Chan B.M., Uniyal S., Onodera H., Wang D.Z.,
Damjanovich L., Latzer D.B., Finberg R.W., Bergelson J.M.;
"The mouse VLA-2 homologue supports collagen and laminin adhesion but
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EXTRACELLULAR (POTENTIAL) POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
PG-GAP 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FG-GAP 1.
FG-GAP 2.
VWFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HSSP, P17301, 100x.
MGD, MGI:96600, 1tga2.
InterPro, IPR000413; Integrin_alpha.
InterPro, IPR002035; VWF_A.
                                                                                                          not virus binding.";
Cell Adhes. Commun. 2:131-143(1994)
                                                                                                                                                                                          TISSUE=Lung;
MEDLINE=94355691; PubMed=7521231;
                                                                                                                                             [2]
SEQUENCE OF 450-1178 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; Z29987; CAA82877.1; -. EMBL; X75427; CAA53178.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1129
1151
1178
100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            546
607
664
504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PIR; S44142; S44142
```

	680 KNSTRROTQVLGITQTCETLKLQLPNCIEDPVSFIVLRINFSLVGTPLSAFGNLRPVL  118 SERFLQKONMVNBVQKCSEHHISIQKPSDVVNPLDLRVDISLENPGTSPAL  738 AEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGGPREFNVT  769 EAYSET: VEST	985 LVTIHIPQYTKEKNPLLYLTGIQTDQAGDISCTAEINPLKLPHTAPSVSFKNENFR 1 985 LVTIHIPQYTKEKNPLLYLTGIQTDQAGDISCTAEINPLKLPHTAPSVSFKNENFR 1 985 LVTIHIPQYTKEKNPLLYLTGIQTDQAGDISCTAEINPLKLPHTAPSVSFKNENFR 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ITAZ HUMAN STANDARD; PRT; 1181 AA.  ITAZ HUMAN STANDARD; PRT; 1181 AA.  C 1173 HUMAN STANDARD; PRT; 1181 AA.  C 1173 HUMAN STANDARD; PRT; 1181 AA.  DT 01-AUG-1990 (Rel. 15, Last sequence update)  DT 01-AUG-1990 (Rel. 15, Last sequence update)  DT 15-SEP-2003 (Rel. 42, Last annotation update)  DE (Collagen receptor) (VLA-2 alpha chain) (CD49b).  Integrin alpha-2 precursor (Platelet membrane glycoprotein Ia) (GPIa)  DE (Collagen receptor) (VLA-2 alpha chain) (CD49b).  S Homo sapiens (Human).  C ENKaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostom;  NCEL TAXID-9606;  RN [1]  RN CEL TAXID-9606;  RN [1]  RN SEQUENCE FROM N.A., AND SEQUENCE OF 30-44.  RN MEDLINE-89308899; PubMed=2545729;  RN MEDLINE-89308899; PubMed=2545729;  RN Takada Y., Hemler M.B.;  Takada Y., Hemler M.B.;  RN MEDLINE-89308899; PubMed=2545729;  RN [2]  RN SEQUENCE FROM N.A.  RA RAIKumar N., Toch B.J., Yi O., Nickerson D.A.;  RA RAIKumar N., Toch B.J., Yi O., Nickerson D.A.;  RN SEQUENCE FROM N.A.  RA RAIKumar N., Toch B.J., Yi O., Nickerson D.A.;  RN SEQUENCE FROM N.A.  RA RAIKumar N., Toch B.J., Yi O., Nickerson D.A.;  RN SEQUENCE FROM N.A.  RA RAIKumar N., Toch B.J., Yi O., Nickerson D.A.;  RN SEQUENCE FROM N.A.  RA RAIKumar N., Toch B.J., Yi O., Nickerson D.A.;  RN SEQUENCE FROM N.A.  RA RAIKumar N., Toch B.J., Yi O., Nickerson D.A.;  RN MEDLINE-98019223; PubMed=9353312;  RN MEDLINE-98019223; PubMed=9353312;  RN MEDLINE-9801923; PubMed=9353312;  RN MED
	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	: 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	PRETTAR REPRETTER RECOCCESSES BELLE
	C SITE (POTENTIAL).  C) (POTENTIAL).  C) (POTENTIAL).  C) (POTENTIAL).  C) (POTENTIAL).  C) (POTENTIAL).  C) (POTENTIAL).  C) (POTENTIAL).  C) (POTENTIAL).  C) (POTENTIAL).  C) (POTENTIAL).  C) (POTENTIAL).  C) (POTENTIAL).  C) (POTENTIAL).	ch 18.0%; Score 1057; DB 1; Length 1178;  1 Similarity 27.8%; Pred. No. 4.5e.64;  341; Conservative 209; Mismatches 487; Indels 188; Gaps 45;  1 FNLDTENAMTEQ-ENARGEGOSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYST 54;  27 YNVGLPGAKIPSGPSEGFGYSVQQLTNPQGNWLLVGSPWSGPPENRGDVYKCPVDLPT 86  55 GSCEDIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLC 107;	GULTNTFRAIEFARDY  RYVLGFGDAFR
	POTENTIAL. POTENTIAL. POTENTIAL. GFFRE MOTIF. BY SIMILARITY. BY SI	8%; Score 1057; DB 1; Length 11 209; Mismatches 487; Indels ARGFGOSUVQLQGSRUVUGAPQEIVAANQRG SEGFGYSUQQLTNPQGNWLLUGSPWSGFPENRMGVEVEAUNMSLGLSLAATTSPPQLLACGPTUHQT NVTBIKTNMSLGLTURNPGTGGFLTCGPLWHQT NVTBIKTNMSLGLTURNPGTGGFLTCGPLWHQG KFPRALRGCPQEDSDIAFLIDGGGSIIPHDFRRM SFSPAUQACPSLVDVVVVCDESNSIYPWEAV	RITENLINDFETKEDMV LIDGEKEGDPLGYEDV LITGEEKEGDPLGYEDV LITGEEKTGDPLGYEDV LITGESH-DGSKLKTV HVFQANNFEALLEKAG LIST LIST REINVADEAALLEKAG VGSYDWAGGVFLYTSK LIST VQHIGLVAMFRQVELYTSK LIST ANTGQIVLYSVNK SYEQTRGGGVSVCP LIST ANTGALVAMFRGAVYL LIST LIST LIST LIGAPULLUGAGGHVLLL LIGSPVENENSGAVYL LIST LIGAPULTVGAGGHVLLL LIGSPVENENSGAVYL LIGAPULTVGAGGHVLLL LIGSPVENENSGGAVYL LIGAPULTVGAGGHVLLL LIGSPVENENSGGAVYL LIGAPULTVGAGGHVLLL LIGSPVENENSGGAVYL LIGAPULTVGAGGHVLLL LIGSPVENENSGGAVYL LIGAPULTVGAGGHVLL LIGAPULTVGAGGHVLL LIGAPULTVGAGG
	D 560 568 624 632 1154 1158 115 1158 115 1158 115 1158 115 1158 115 1158 115 116 115 116 115 116 115 116 115 116 115 116 116 116 117 116 118 116 118 118 118 118 118 118	tch al Similarity 27.84; Pred. No. 4.5e-64; 341; Conservative 209; Mismatches 487; Indels 1 FNLDTENAMTEQ-ENARGEGSVVQLGSRVVVGAPQEIVAANQRG 27 YNVGLEGAKIFSGPSSEGFGYSVQQLTNPQGNWLLVGSPWSCPENRMG 27 YNVGLEGAKIFSGPSSEGFGYSVQQLTNPQGNWLLVGSPWSCPENRMG 55 GSCEPIRLQVEVEVEAVMMSLGLSLAATTSPPQLLACGPTVHQT 87 ATCEKINLQNSASISNVTBIKTNMSLGLIATTRNPGTGGFLTCGPLWAHQ 108 FLFGSNLNQOPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRM 1147SDVSPDFQFLTSFSPAVQACPSL-VDVVVVCDESNSIYPWEAV 165 KKSKTLFSIMOYSEERIHFPFREFONNPNPRSLIKPTTOLLG-ETH	
-	FT CA BIND FT SITE   SI	Query Match           Best Local Sin           Best Local Sin           Oy         1 FP           Oy         27 YN           Qy         55 Gs           Db         87 AP           Qy         108 FI           Db         147           Ov         165 K	

```
3D-structure.
SIGNAL
CHAIN 3
   Thromb. Haemost. 83:392-396 (2000)

Thromb. Haemost. 83:392-396 (2000)

Thromb. Haemost. 83:392-396 (2000)

Thromb. Haemost. 83:392-396 (2000)

COLLAGEN. COLLAGEN C-PROPERTIDES, FIBRONECTIN AND E-CADHENIN. TECOLLAGEN. TIS RESPECTIOES, FIBRONECTIN AND E-CADHENIN. IT RECOGNIZES THE PROLINE-HYDROXYLATED SEQUENCE G-P-G-E-R IN COLLAGEN. TIS RESPECTIONS MODILATION OF COLLAGEN AND COLLAGEN AND COLLAGEN AND COLLAGEN AND COLLAGEN AND COLLAGEN AND COLLAGENES GENE EXPRESSION, FORCE GENERATION OF COLLAGEN AND COLLAGENES GENE EXTRACELLULAR MATRIX.

C.I. SUBRINIT: Heterodimer of an alpha and a beta subunit. Alpha-2 associates with beta-1. Interacts with HPS5.

C.I. SUBRINIT: HETEROTINIT: "DOMAIN INTEGRIN INTEGRINS OF CEAVAGE.

C.I. DOMAIN: THE INTEGRIN I-DOMAIN (INDERGO PROTEASE CLEAVAGE.

C.I. DOMAIN: THE INTEGRIN I-DOMAIN (INDERGO PROTEASE CLEAVAGE.

C.I. DOMAIN: PAS-51 IS INVOLVED IN NEONATAL ALLOIMMUNE ALLOIMMUNE CONTANCE THROMBOCYTOPERASE (LAD).

HAS GLU-534. HPA-58 IS INVOLVED IN NEONATAL ALLOIMMUNE CONTANCE THROMBOCYTOPERASE (LAD).

THROMBOCYTOPERAN (INDEACE CONTANTS): COLLAGENES (LAD).

C.I. SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN PAMILY.

C.I. SIMILARITY: CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 FOR ENTRY (CONTANTS): CONTAINS 7 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SMISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@18b-8ib.ch)
                                                                                                                                          MEDLINE=20206009; PubMed=10744142; Kroll H., Gardemann A., Fechter A., Haberbosch W., Santoso S.; The impact of the glycoprotein Ia collagen receptor subunit A1648G gene polymorphism on coronary artery disease and acute myocardial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MINI, 19294; C. integrin complex; TAS.

R GO; GO:0008305; C:integrin complex; TAS.

R GO; GO:0008305; F:cell adhesion receptor activity; TAS.

R GO; GO:0005518; F:cell adhesion receptor activity; TAS.

R GO; GO:0007596; P:blood cogqulation; TAS.

R GO; GO:0007160; P:cell-adhesion receptor activity; TAS.

R GO; GO:0007137; P:blood cogqulation; TAS.

R GO; GO:0007397; P:histogenesis and organogenesis; TAS.

R InterPro; IPR000431; Integrin_alpha.

R Pfam; PF01839; FG-GAP; 3.

R Pfam; PF00185; INTEGRIN_A; 1.

R Pfam; PF000557; Integrin_A; 1.

R PRINTS; PR01185; NWFADOMAIN.

R SMART; SM00191; Int_alpha; 5.

R SMART; SM00191; Int_alpha; 5.

R R SMART; SM00191; Int_alpha; 6.

R R SMART; RM00327; VWFA; 1.

R PROSITE; PS50242; INTEGRIN_ALPHA; 1.

R PROSITE; PS50242; WFPA; 1.

R PROSITE; PS50242; WFPA; 1.

R PROSITE; PS50242; WFPA; 1.

R PROSITE; PS50242; WFPA; 1.
MEDLINE=94043762; PubMed=7901236; Santoso S., Kalb R., Walka M., Kiefel V., Mueller-Eckhardt C., Newman P.J., "The human platelet alloantigens Br(a) and Brb are associated with a single amino acid polymorphism on glycoprotein Ia (integrin subunit alpha:2)."; Clin. Invest. 92:2427-2432(1993).
```

```
Gaps
                                                                                                                                                                                                                    (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels 188;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1181;
                                                                                                                                                                                                                                                                                                      HPA-5B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            129295 MW; 7E1B7ED968A94070 CRC64;
INTEGRIN ALPHA-2.
EXTRACELULAR (POTENTIAL).
                        CYTOPLASMIC (POTENTIAL).
INTERACTION WITH HPS5.
                                                                                                                                                                                                                                                                                                      K -> E (IN ALLOANTIGEN dbsnP:1801106).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
17.9%; Score 1054; DB 1;
Best Local Similarity 26.8%; Pred. No. 7.3e-64;
Matches 328; Conservative 215; Mismatches 494;
                                                                    FG-GAP 3.
FG-GAP 4.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
POTENTIAL.
POTENTIAL.
FG-ERR MOTIF.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY LINKED (GLCNAC.
N-LINKED (GLCNAC.
                                                                                                                                                                                                                                                                                                                        FTIG=VAR_003977
                                            FG-GAP 1.
FG-GAP 2.
VWFA.
                                                                                                          667
531
1161
1161
7937
7937
7937
1060
11050
11050
4450
4450
6999
10674
10674
10674
                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
        DOMAIN
TRANSMEM
DOMAIN
DOMAIN
BEREAT
MEPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
CA-BIND
CA-BIND
CA-BIND
CA-BIND
                                                                                                                                                                                 DISULFID
                                                                                                                                                               DISULFID
                                                                                                                                                                                                    DISULFID
                                                                                                                                                       DISULFID
```

44;

```
996 YTKEKNPLMYLTGVQTDKAGDISCNADINPLKIGQT----SSSVSFKSENFR---HTKE- 1047
                                                                                                     165
                                                                                                                                                                                                                                                                                                                                                          448
                                                                                                                                                                             265
                                                    107
                                                                            149
                                                                                                                                                     224
                                                                                                                                                                                                                             324
                                                                                                                                                                                                                                                                                383
                                                                                                                                                                                                                                                                                                          394
                                                                                                                                                                                                                                                                                                                                   443
                                                                                                                                                                                                                                                                                                                                                                                   498
                                                                                                                                                                                                                                                                                                                                                                                                            506
                                                                                                                                                                                                                                                                                                                                                                                                                                     555
                                                                                                                                                                                                                                                                                                                                                                                                                                                              564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALD----SGRPHSRAVFNETK 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
  54
                          8
1 FNLDTENAMIPQ-ENARGFGQSVVQL---OGSRVVVGAPQEIVAANQRGSLYQC--DYST
                 GSCEPIRLO------VPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLC
                                                                    90 ATCEKLNLÕISISIPNVTEMKINMSLGLILTRNMGIGGFLICGPLWAQQCGNQYYITGVC
                                                                                                   FLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLK--
                                                                                                                                                     KSKTLFSLMQYSEEFRIHFIFFKEFQNNPNPRSLIKPITQLLG-RTHTATGLRKVVRELFN
                                                                                                                                                                  225 ITNGARKNAFKILFLLTDGEKFGDPLGYEDVIPELDREGVIRY---VLGF--GDAFRSEK
                                                                                                                                                                                                                   LIKEIKAIASIPTERYFFNVSDEAALLEKAGTLGEQIFSIEGTVQG-GDNFQMEMSQVGF
                                                                                                                                                                                                                                                                                                         SAAITSNGP--LLSTVGSYDWAGGVFLYTSKEKSTFINMT--RVDSDMN-DAYLGYAAAI
                                                                                                                                                                                                                                                                                                                                384 SADYSSONDILMLGAVGARGWSGTIVQKTSHGHLIFPKQAFDQILQDRNHSSYLGYSVAA
                                                                                                                                                                                                                                                                                                                                                          ILRNRVQSLVLGAPRYQHİGLVAMFRQNTGMWESNANV-----KGTQIGAYFGASLCSV
                                                                                                                                                                                                                                                                                                                                                                                                          DVDSNGSTDLVLIGAPHYYEQTR - - GGOVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFG
                                                                                                                                                                                                                                                                                                                                                                                                                         AALTVLGDVNGDKLTDVAİGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGS--KLSPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            673 AQII------LKLCF---SAKFRPTKQNNQVAIVYNITLDADGFSSRVTSRGLFKENN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 681 NSTRROTOVLGLTOTC - ETLKLOLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ERCLQKUMVVNQAQSCPEHIIYIQEPS-----PALE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EDAQRIFTALFPFEKNCGNDNICQDDLSITF----SFMSLDCLVVGGPREFNVTVTVRND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AYSETAKVESIPHKDCGEDGLCISDLVLDVRQIPAAQEQPFIVSNQNKRLTFSVTLKNK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASST-EVSGALKSTSCSINH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             833 RESAYNTGIVVDFSENLEF-----ASFSLPVDGTEVTCQVAASQKSVACDVGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    150 SDISPDF-QLSASFSPATQPCPSL-IDVVVVCDESNSIYPWD--AVKNFLEKFVQGLDIG
                                                                                                                                                                                                                                                       SROELNTVASKPPRDHVFQANNFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGF
                                                                                                                                                                                                                                                                                                                                                                                 ISTGESTHFVAGAPRANYTGOIVLYSVN----ENGNITVIQAHRGDQIGSYFGSVLCSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PI FPENSEVTFNI TFDVDSKASLGNKLLLKANVTSENNMPRINKTEFQLELPVKYAVYMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----PVRLNQTVIWDRPQVTF-SENLSSTCHTKER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQR-----SLPISLVFLV----
                                                  55
                                                                                                   801
                                                                                                                                                     166
                                                                                                                                                                                                                                                       280
                                                                                                                                                                                                                                                                                325
                                                                                                                                                                                                                                                                                                                                                                                   444
                                                                                                                                                                                                                                                                                                                                                                                                                                                           507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            773
                                                                                                                                                                                                                                                                                                         340
                                                                                                                                                                                                                                                                                                                                                          395
                                                                                                                                                                                                                                                                                                                                                                                                                                    499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          722
                                                                                                                                                                                                                                                                                                                                                                                                            449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       854
                       유
                                                ò
                                                                    Q
                                                                                             ò
                                                                                                                      요
                                                                                                                                          상 원
                                                                                                                                                                                               ò
                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                     <u>۾</u> ۾
                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                           QC
                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                            ρp
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                               LPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNH 1048
                                ------LNCRTASCSNVTCWLKDVHMKGEYFVNVTTRIWNGTFASSTFQT 1091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=99313197; PubMed=1038626;
Nolte M., Pepinsky R.B., Venyaminov S.Y., Koteliansky V.,
Gotwals P.J., Karpusas M.; Venyaminov S.Y., Koteliansky V.,
[Crystal structure of the alphalbetal integrin I-domain: insights into integrin I-domain function.";
FEBS Lett. 452:379-386 (1999).

-!- FUNCTION: INTEGRIN ALPHA-1/BETA-1 IS A RECEPTOR FOR LAMININ AND
COLLAGEN. IT RECOGNIZES THE PROLINE-HYDROXYLATED SEQUENCE G-FP-G-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -!- SUBCELLULAR LOCATION: Type I membrane protein.
-!- DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
-!- SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
-!- SIMILARITY: Contains I VWFA domain.
-!- SIMILARITY: Contains 7 FG-GAP repeats.
                                                                            ---LP--LIVGSSVG
                                                                                                                                                                                                                                                                                                                                                                                                                           Rattus norvegicus (Rat).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                            01-NOV-1990 (Rel. 16, Created)
1-NOV-1990 (Rel. 16, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
Integrin alpha-1 precursor (Laminin and collagen receptor) (VLA-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ignatius M.J., Large T.H., Houde M., Tawil J.W., Barton A., Bach F., Carbonetto S., Reichardt L.F., "Molecular cloning of the rat integrin alpha 1-subunit: a receptor for laminin and collagen.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -!- SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-1
ASSOCIATES WITH BETA-1.
                                                                        LLIVSTAEI-LFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  X-RAY CRYSTALLOGRAPHY (2.1 ANGSTROMS) OF 151-364
                                                                                                                                                                                                                                                                             1180 AA
                                                                                                                                                                    |:||| : | |:|||||||:|:|
GILLLLALVAILWKLGFFKRKYEKM 1166
                                                                                                                                               GLILLALITAALYKLGFFKRQYKDM 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR000413; Integrin_alpha
InterPro; IPR002035; VWF A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cell Biol. 111:709-720(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pfam; PF01839; FG-GAP; 3.
Pfam; PF00357; integrin_A; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; X52140; CAA36384.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pfam, PF00092, vwa, 1.
PRINTS, PR01185, INTEGRINA.
PRINTS, PR00453, VWFADOMAIN.
                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PIR; A35854; A35854.
PDB; ICK4; 03-MAY-00.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       E-R IN COLLAGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=10116;
                                    1048
                                                                        1049
                                                                                                                                                 1101
                                                                                                                                                                                   1142
989
                                                                                                                                                                                                                                                                                                                                                                                       (CD49a).
                                                                                                                                                                                                                                                                           ITA1 RAT
                                                                                                                                                                                                                                     g
                                                                                                         g
                                                                    8
                                                                                                                                             ઠે
                                                                                                                                                                            셤
```

390 438

```
989 RKRCHFPMPELQLSISFPNLTADGYPVLYPIG-----WSSSDNVNCRPRSLEDPFGINS 1042
                                                                                                                                                                                                                                                                                                                                                                                       HSRAVFNET-----KNSTRRQTQVLGLTQTCETLKLQLPNCI------EDPVSPIV 715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----PFFGIQEEF---NATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SLNDNEVNISIPVKYEVGLQFYSSASEHHISVAANETIPEFINST--EDIGNEINVFYTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -- QVTPS-----ENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAFVRSQTETKVEPFEVPNPLPL - - IVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE
                                                                                                                                                                                                                                                495 YGEQGQPWG-RFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHS
                                                                                                                                                                                                                                                                                         ASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLL-LKANVTSENNMP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SNLGQRSLP---ISLVF-----LVPVRLNQTVIWD-----RP-----
                                          ELFNITNGARKNAFKILFLLTDGEKFGDPLGYEDVIPELDREGVIRY---VLGFGDA--F
                                                          EAFTEARGARRGVKKVWVIVTDGESH-DNYRLKQVIQDCEDENIQRFSIAILGHYNRGNL
                                                                                                                                                                                  AAAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDV
                                                                                                                                                                                                TVNSATI PGDVLY1AGQPRYNHTGQVVIYKMEDGNINILQTLGGGQIGSYFGSVLTTIDI
                                                                                                                                                                                                                                DSNGSTDLVLIGAPHY------YEQTR-GGQVSVCPLPRGQRARWQCDAVL
                                                                                                                                                                                                                                                                                                                          QRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNP
                                                                                                                                                                                                                                                                                                                                                                          614 REVARNVFECNDQVVKGKEAG--EVRVCLHVQ-KSTRDRLREGQIQSVVTYDLALDSGRP
                                                                                                                                                                                                                                                                                                                                                                                                                                             731 ISRSFFSGTQERKIQRNITVRESE-------CIRHSFYMLDKHDFQDSVR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LRINFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLVVGGPRE-FNVTVTVRNDGEDSYRTQVTFFPPLDLSYRKVSTLQNQRSQRSWRLACES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             894 RINKTEFQLELPVKYAV----YMVVTSHGVST-----KYLNFTASENTSRVMQHQYQV
                                                                                                      STEKFVEEIKSIASEPTEKHFFNVSDELALVTIVKALGERIFALEATADQSAASFEMEMS
                                                                                         RSEKSROELNTVASKPPRDHVFQANNFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMS
                                                                                                                                      QEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT--RVDSDMND---AYLGY
                                                                                                                                                   SLLLWRPTF-IRAHFSSLNLTLRGELK-----SENSSLTLSSSN----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         972
                                                                                                              319
                                                                                                                                                             379
                                                                                                                                                                                    391
                                                                                                                                                                                                                                                                                                                                                  618
                                                                                                                                                                                                                                                                                                                                                                                                 678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         828
                                                                   260
                                                                                                                                                                                                                                                        499
                                                                                                                                                                                                                                                                                                                            554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 176
                                                                                                                                      336
                                                                                                                                                                                                           439
                                                                                                                                                                                                                                 451
                                           221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT
                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                       g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                         8
                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                6 ይ
                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                셤
                                                                                                          8
                                                                                                                                    કે
                                                                                                                                                                             δ
                                                                                                                                                                                                                               ઠે
                                           ઠે
                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CSDVSPTFQVVNSFAP----WESVIAFLNDLLKR 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKK 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ----SKTLFSLMQYSBEFRIHFTFKEFQNNPNPRSLIKPITQLLG-RTHTATGLRKVVR 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ----VNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FNLDTENAMTFQENARG-FGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQCDYSTGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27.3%; Pred. No. 1.6e-63; ive 200; Mismatches 476; Indels 240; Gaps
                                                                                                                                                                                                                                                                                                                                                                                     (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL)
                                                         Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 1049; DB 1; Length 1180;
                                                                                       INTEGRIN ALPHA-1.
EXTRACELLULAR (POTENTIAL).
POTENTIAL.
CYTOPLASMIC (POTENTIAL).
FG-GAP 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-LINKED (GLCNAC. W) 8ESDA2BE02362EE4
SMART; SM00191; Int alpha; S. SMART; SM00327; VWA, 1. PROSITE; PS00242; INTEGRIN ALPHA; 1. Integrin; Cell adhesion; Receptor; Glycoprotein; Signal; Repeat; Calcium; Magnesium; 3D-structure. SIGNAL
                                                                                                                                                                                                                                                                                                                                                                (GLCNAC.
(GLCNAC.
(GLCNAC.
(GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                               GLCNAC.
(GLCNAC.
(GLCNAC.
(GLCNAC.
(GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GLCNAC
                                                                                                                                                                                                                                                                                                    BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                 SIMILARITY
                                                                                                                                                              VWFA.
FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 6.
FG-GAP 7.
                                                                                                                                                                                                                                                POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                       N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                              N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                               N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1308081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CEP-IRLOVPVEA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                               885
1062
1073
100
105
112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1007
1084
1103
1114
                                                                                                      1142
1165
1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 344; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1007
1084
1103
1114
                                                                                          CHAIN
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                              DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                       DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                      REPEAT
CA BIND
CA BIND
CA BIND
                                                                                                                                                                                                                                                                                 DISULFID
                                                                                                                                                                                                                                                                                             SULFID
                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                              DOMAIN
REPEAT
REPEAT
                                                                                                                                                                                                REPEAT
REPEAT
                                                                                                                              NIAMOC
                                                                                                                                        REPEAT
                                                                                                                                                     REPEAT
```

773 775 827 834 879 893 942

g

à

a ò g ò

ò

558 553 617 613 677

```
CONFLICT
CONFLICT
CONFLICT
SEQUENCE
                                                                                                               REPEAT
DOMAIN
CA_BIND
CA_BIND
CA_BIND
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              441
                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                       CARBOHYD
CARBOHYD
CHAIN
DOMAIN
TRANSMEM
                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                               CARBOHYD
                                                            DOMAIN
REPEAT
                                                                                           REPEAT
REPEAT
                                                                                  RPEAT
                                         REPEAT
                                                    REPEAT
 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                           TISSUEENCE FROM N.A.

TISSUE-Endothelial cells, and Heart;

MEDLINE-20169197; PubMed-10702680;

MEDLINE-20169197; PubMed-10702680;

Lehnert K., Ni J., Leung E., Gough S.M., Morris C.M., Liu D.,

Lehnert K., Ni J., Leungley R., Krissansen G.W.;

The integrin alphalo subunit: expression pattern, partial gene cructure, and chromosomal localization.";

Cytogenet. Cell Genet. 87:228-244(1999).

Cytogenet. Cell Genet. 87:228-244(1999).

CYTOGENET. HYPEGRIN ALPHA-10/BETA-1 IS A RECEPTOR FOR COLLAGEN.

CYTOGENET. HYPEGRIN ALPHA-10, BETA SUBUNIT. ALPHA-10 ASSOCIATES WITH BETA-1.

CYTOGENET. BELOGATION: Type I membrane protein.

CYTOGENET. POWAIN: TYPE INTEGRIN 1-POMAINS ON THE INTEGRIN CARTILAGE.

MUSCLE AND HEART. FOUND IN ARTICULAR CARTILAGE.

CYTOGENET. BELOMGS TO THE INTEGRIN ALPHA CHAIN FAMILY.

CYTOGENET. BELOMGS TO THE INTEGRIN ALPHA CHAIN FAMILY.

CYTOGENET. BELOMGS TO THE INTEGRIN ALPHA CHAIN FAMILY.

CYTOGENET. SIMILARITY: Contains 1 WARA domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.

TISSUB=Arricular chondrocytes;

TISSUB=Arricular chondrocytes;

Camper L., Hellman U., Lanan U., Lanan U., and sequence analysis of the integrin subunit alphalo, a betal-associated collagen binding integrin expressed on
                                                                     ITGAIO.

Homo sapiens (Human).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primateg; Catarrhini; Hominidae; Homo.

NCBI_TaxID=9606;
        | TRAG-AUMAN STANDARD; | PRT; 1167 AA. 075578; Q9UHZ8; | 16-OCT-2001 (Rel. 40, Created) | COCT-2001 (Rel. 40, Last sequence update) | 28-FEB-2003 (Rel. 41, Last annotation update) | Integrin alpha-10 precursor.
                                                                                                                                                                                                  chondrocytes.";
J. Biol. Chem. 273:20383-20389(1998)
```

```
44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            83 NAPCAKGHLGDYQLGNSSHP-----AVNMHLGMSLLETDGDGGFMACAPLWSRACGS 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          248 AIMVACTEGFSQSHGGRPEAARLLVVVTDGESHDGEEL--PAALKACEAGRVTRYGIAVL 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FGASLCSVDVDSNGSTDLVLIGAPHYY - - EQTRGGQVSVCPLPRGQRARWQCDAVLYGEQ 498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 FNLDTENAMTFQENARG-FGQSVVQLQGSR----VVVGAPQEIVAANQRGSLYQC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23 FNLDEHHPRLFPGPPEAEFGYSVLQHVGGQRWMLVGAPWDGPSGDRRGDVYRCPVGGAH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     51 ------DYSTG-SCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100 NTYVKGLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHD-----FRRMK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            155 ELVSTIMEQLKKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGR-THTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         214 GLRKVVRELFNITNGARKNAFKILFLLTDGEKF-GDPLGYEDVIPELDREGVIRY-VLGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    272 GDAFRSEKS----RQELNTVASKPPRDHVFQANNFEALKTVQNQLREKIFALEGTQTGSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       328 SSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDS----D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    383 MNDAYLGYA-AAIILRNRVQSLVLGAPRYQHIGLVAMFR-QNTGMWESNANVKGTQIGAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           426 NHAAYLGYSVSSMLLRGGRRLFLSGAPRFRHRGKVIAFQLKKDGAVRVAQSLQGEQIGSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 17.7%; Score 1042.5; DB 1; Length 1167; Best Local Similarity 28.5%; Pred. No. 4.4e-63; Matches 348; Conservative 201; Mismatches 495; Indels 177; Gaps
                                                                                                                                                                                                                                                                                                                        (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                14 I -> L (IN REF. 2).

G -> V (IN REF. 2).

127573 MW; AE7D3A1C25C1AEAO CRC64;
EXTRACELLULAR (POTENTIAL)
POTENTIAL.
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                          (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                      (GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                   (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                           BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
                                                                                        FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
POLY-LEU.
POTENTIAL.
POTENTIAL.
                                           FG-GAP 1.
FG-GAP 2.
                                                                      921
1011
1018
1039
844
                                                                                                                                                                                                                                                                                                                                                                                                   921 92
1011 101
1018 103
1039 103
844 84
909 90
926 92
```

17 993 16.9 895 11 Q9WUFB Q9wufB mus sp. itg 18 986.5 16.8 1160 6 Q8MKF4 19 865 14.7 348 4 Q8TES5 20 837 14.2 1332 5 Q9BFQB 21 784 13.3 205 11 Q63001 22 753.5 12.8 780 13 Q66221 23 738 12.6 823 4 Q8WYIB 24 686.5 11.7 823 11 Q6CE84 25 672 11.4 1032 11 Q61899 26 643 10.9 1036 11 Q91YD5 27 639.5 10.0 1036 10 Q91YD5 28 628.5 10.7 257 11 Q61299 29 619.5 10.5 1041 5 Q9US91 29 619.5 10.5 1041 5 Q9US91 29 619.5 10.3 13 Q9US91 29 619.5 10.3 13 Q9US91 29 619.5 10.4 5 Q9US91 29 619.5 10.4 5 Q9US91 29 619.5 10.4 5 Q9US91 29 619.5 10.4 5 Q9US91 29 619.5 10.4 5 Q9US91 29 619.5 10.4 5 Q9US91 29 619.5 10.4 5 Q9US91 29 619.5 10.4 5 Q9US91 29 619.5 10.4 5 Q9US91 29 619.5 10.4 5 Q9US91 29 619.5 10.5 10.4 5 Q9US91 29 619.5 10.5 10.4 5 Q9US91 29 619.5 10.5 10.4 5 Q9US91 29 619.5 10.5 10.4 5 Q9US91 29 619.5 10.5 10.4 5 Q9US91 29 619.5 10.5 10.4 5 Q9US91 29 619.5 10.5 10.4 5 Q9US91 29 619.5 10.5 10.4 5 Q9US91 29 619.5 20.5 20.5 20.5 20.5 20.5 20.5 20.5 20	529 9.0 974 11 0924W2 529 9.0 1007 6 09GK48 528 9.0 1073 11 08CC06 513.5 8.7 1034 6 09TUN4 510.5 8.7 1034 6 09TUN6 507 8.6 1012 11 070304 491.5 8.4 1049 5 08SY51 471.5 8.0 604 11 09BQ25 470.5 8.0 1036 6 09TU44	RESULT 1  99J130  TO 09J130  PRELIMINARY; PRT; 1151 AA.  AC 09J130; PRELIMINARY; PRT; 1151 AA.  COT-2000 (TrEMBLrel. 15, Created)  DT 01-OCT-2000 (TrEMBLrel. 23, Last sequence update)  DT 01-MAR-2003 (TrEMBLrel. 23, Last annotation update)  DE Integrin beta 2 alpha subunit.  DE Martus norvegicus (Rat).  CO ENARYOta; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  CO Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.  NN NEI TaxID=10116;  RN SEQUENCE FROM N.A.  RA Fathallah D.M. Sr., Zerria K. Jr.;  RA Fathallah D.M. Sr., Zerria K. Jr.;  RA Submitted (MAY-2000) to the EMBL/GenBank/DDBJ databases.	DR EMBL; AF268593; AAF81280.1;  DR HASSP, P11215; 18HQ.  DR NIGETPO; 1PR002035; VWF.A.  DR Fam; PF001893; FG-GAR; 5.  DR Pfam; PF00092; Vwa; 1.  DR PRINTS; PR00191; Int_alpha; 5.  DR RINTS; PR00191; Int_alpha; 5.  DR SMART; SM00191; Int_alpha; 5.  SEQUENCE 1151 AA; 126943 MW; 8F785695D4074CA5 CRC64;  Action of the state of the s
		<ul><li>(2) 日本日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日</li></ul>	8 6 6 8888888888888888
GenCore version 5.1.6 (c) 1993 - 2003 Compugen Ltd.  using sw model 2003, 14:11:54 ; Search time 33.1068 Seconds (without alignments) .8862.397 Million cell updates/sec .8-3 GeneRGFGOFKRQYKDWMSEGGPPGAEPQ 1137 Gapext 0.5	chosen parameters: 830525	te:*  te:*  fied:*  results predicted by chance to have a  results score of the result being printed, of the total score distribution.	RIES
GenCore (c) 1993 using sw 2003 14 11B-3 FQENARGFC Gapext 0	ing cho	rria:	80 11 11 11 11 11 11 11 11 11 11 11 11 11
GenCore v. Copyright (c) 1993 - in search, using sw ivember 25, 2003, 14: -09-902-481B-3 -79 FNLDTENAMTROENARGFGQ OSUM62 pop 10.0 , Gapext 0.	ctisfying c 000000000000000000000000000000000000	sp Dacceria:* sp_luman:* sp_luman:* sp_invertebrate:* sp_mammal:* sp_manal:* sp_manal:* sp_pana:* sp_pana:* sp_pana:* sp_rodent:* sp_rodent:* sp_rodent:* sp_rodent:* sp_rodent:* sp_rodent:* sp_rodent:* sp_rodent:* sp_rodent:* sp_rodent:* sp_rodent:* sp_rodent:* sp_rodent:* sp_rodent:* sp_rodent:* sp_rodent:* sp_rodent:* sp_rodent:* sp_rodent:* sp_archeap	Length 1151 1151 1151 1151 1151 1151 1151 11
Copyright (c protein search, u November 25, 2 US-09-902-481B 15879 1 FNLDTENAMTFQ 1 BLOSUM62 Gapop 10.0 , G 830525 segs, 2	f hits satisfying length: 0 length: 2000000 g: Minimum Match Maximum Match Listing first SPTREMBL 23:* 1: sp_archea:*	2: Sp_bacteria: 3: Sp_fungi:* 4: Sp_human:* 5: Sp_invertebra 6: Sp_mammal:* 7: Sp_mhc:* 10: Sp_ncganelle: 9: Sp_phage:* 10: Sp_rodent:* 11: Sp_rodent:* 12: Sp_virus:* 13: Sp_virus:* 14: Sp_unclassif 15: Sp_virus:* 16: Sp_bactebrat 16: Sp_archebrat 17: Sp_archebrat 17: Sp_archebrat 17: Sp_archebrat 18: Sp_archebrat 18: Sp_archebrat 19: Sp_archeb	* OZE
pro-	Total number of hits satisfying Minimum DB seq length: 0 Maximum DB seq length: 2000000  Post-processing: Minimum Match Listing first Database: SPTREMBL 23:* 1: sp_archea:	2 U m	0 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
OM protein Run on: Title: Perfect sc Sequence: Scoring tal	த்றைல்	Pred scor	0.1 , 0.10 L L L L L L L L L L L L L L L L L L L

5 A		DE INTEGRIN alpha M.  OS Mus musculus (Mouse).  OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata  OC Mammalla; Butheria; Rodentia; Sciurognathi; Murida		RA The FANTOM Consortium, RA the RIKEN Genome Exploration Research Group Phase I RT "Analysis of the mouse transcriptome based on funct		Query Match 66.0%; Score 3878.5; DB 11; Best Local Similarity 65.6%; Pred. No. 6.4e-279; Matches 747; Conservative 126; Mismatches 146;	Qy 1 FNLDTENAMTFQENARGFGGSVVQLGGSRVVGAPQEIVAAN	Qy 61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHOTCSENTY	Oy 121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIME	QY 181 RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVREI	Oy 241 TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSR(	Oy 301 NFBALKTVONQLREKIFAIBCTQTGSSSSFBHEMSQEGFSAJ 	Qy 361 GVELYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQS 	Qy 421 QNTGMWESNANVKGTQIGAVFGASLCSVDVDSNGSTDLVLIC           : :     Db 437 ENFGTWEPHTSIKG	OY 481 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLT			Oy 601 PVLRVKAIMEFNPREVARNVFECNDOVVKGKEAGEVRVCLHT	
61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120	121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF 180	181 RIHFTEKEPONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL 240 	241 TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN 300	301 NFEALKTVQNQLREKIFAIEGTQTGSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360         ::   :	361 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420 	421 QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGQVSVCPL 480	481 PRGQRARWQCDAVLYGEQĞQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF 540 	541 HGTSGSGISPSHSQRIAG\$KLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600 	601 PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIGSVVT 660 	661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF 720	721 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 780 :       :: :        :	781 GPREFNVTVTVRNDGEDS/RTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV 840	841 SGALKSTSCSINHPIFPENSEVTENITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF 900	901 QLELPVKXAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960 	961 RLNOTVIMDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCORIQCDIP 1020	O CINNALIMORROVIENDESOVERIEDONORIESEN EN DIACONORIESE FADINALISMONARIO EN DESCRIPTORIO EN DESCRIPTORIO EN DESCRIPTORIO EN DESCRIPTORIO EN DESCRIPTORIO EN DESCRIPTORIO EN DESCRIPTORIO EN DESCRIPTORIO EN DESCRIPTORIO EN DESCRIPTORIO EN DESCRIPTORIO EN DESCRIPTORIO EN DESCRIPTORIO EN DESCRIPTORIO EN DESCRIPTORIO DE LA CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DE LA CONTRACTORIO DE LA CONTRACTORIO DE LA CONTRACTORIO DE LA CONTRACTORIO DE LA CONTRACTORIO DE LA CONTRACTORIO DE LA CONTRACTORIO DE LA CONTRACTORIO DE LA CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DELICA DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DEL CONTRACTORIO DE	1021 FELGLEERANILMSNLSFURYINISHNILLINOSYFILERGGGARYSOVELL TOOG   CONTROL   C	1081 KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137 	

ROELNTVASKPPRDHVFQAN 300 TYVKGLCFLFGSNLROOPOK 120 ELFNITNGARKNAFKILFLL 240 IGAPHYYEQTRGGQVSVCPL 480 450 TDGLVDLTVGAQGHVLLLRSQ 600 .HVQKSTRDRLREGGIQSVVT 660 | |:|:|:|||||| || || || |RVRKNTKDRLREGDIQSTVT 558 TDVAIGAPGEEDNRGAVYLF 540 ANORGSLYQCDYSTGSCEPI 60 I & II Team; ctional annotation of Indels 119; Gaps a; Euteleostomi; ae; Murinae; Mus. ; Length 1036; CRC64; (e)

g

ઠે

g ò g

ò

g

ò

g

ò

g ò g ò g

ò

```
717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      119
                                                                          297
                                                                                                                 180
                                                                                                                                                     357
                                                                                                                                                                                            240
                                                                                                                                                                                                                                  417
                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                             477
                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                          537
                                                                                                                                                                                                                                                                                                                                                                                                                              419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  839
                      QANNFEALKTVONOLREKIFAIEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYD
                                                                                                                                                                              QVNNFEAVKTIQNQLQEKTFAIEGTQTGSTSSFECEMSQEGFSAAITSNGPLLGAVGSFD
                                                                                                                                                                                                                                                      241 WAGGAFLHMPKDRVIFINTTRVDSDMNDAYLGYAVEVILRNQAQSLVLGAPRYQHTGLVV
                                                                                                                                                                                                                                                                                                                               480 RSQPVLRVBASMVFKPREVARNVYECRQQAAKTQIAGEVQVCLQVRKSTWDRLREGDTOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TEESTALKSTSCSINHPIFPDNSEVTFNVTFDVNPDAFLGYKLLLKANVTSENNMPSSNK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TEFOLEL PVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKIL
                                                                                                                                                                                                                                  WAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVA
                                                                                                                                                                                                                                                                                                             MFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VVTYDLALDSGRPHSRAVFNETKNSTRROTQVLGLTQTCETLKLQLPNC1EDPVSP1VLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNK
                                                                            FLLTDGEKFGDPLGYEDVI PELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVF
                                                                                                                                                                                                                                                                                                                                                                                          CPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         081VA6;
01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
Integrin, alpha X (Antigen CD11C (p150), alpha polypeptide)
Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DIPFEGIQEEFNATLKGNLSF 1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DIPSFGIQEELKVTLKGNLSF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                             418
                                                                                                                                                                                                                                                                                                                                                                                          478
                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          006
  178
                                                                            238
                                                                                                                                                       298
                                                                                                                                                                                            181
                                                                                                                                                                                                                                  358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q8IVA6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VAGORIVAGO DE LIDO OB DE LIDO OB DE LIDO OB LIDO OB LIDO OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTROL OB CONTRO
                                                                          6 6
                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                셤
                                                                                                                                                 ò
                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                          VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                               959
                                                                                                                                                                                                                                                                                                                                                                                                              PSFNTQEIFNVTLKGNLSFDWYIXTSHGHLLLVSSTEILFNDSAFALLPGQESYVRSKTE 978
                                                                                                                                                                                                                                                      GHGALKSTTWNINHPIFPANSEVTFNVTFDVDSHASFGNKLLIKAIVASENNMSRTHKTK 798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TLVGEPLRSFGNLRPVLAMDAQRFFTAMFPFEKNCGNDSICQDDLSITMSAMGLDTLVVG
                                                                                                                                                   GPREFNUTVTVRNDGEDSYRIQVTFFFPLDLSYRKVSTLQNQRSQRSWRL-ACESASSTE
                                                                                                                                                                                                                                                                                                                                 VSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTE
                                                                                                                                                                                                                                                                                                           FOLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POKFPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMBOLKKSKTLFSLMOYS
YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                          SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 02, Last sequence update)
01-RAR-2003 (TrEMBLrel. 23, Last annotation update)
CD11b (Fragment).
Sus scrofa (Pig).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata; Euteleostomi; Mammalia; Eutheria, Cetartiodactyla; Suina; Suidae; Sus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  920;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 3786.5; DB 6; Length
Pred. No. 3.6e-272;
85; Mismatches 113; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MW; E96CCS1E350DD5AC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
Lee J.-K., Schook L.B., Rutherford M.S.;
Submitted (NOV-1995) to the EMBL/GenBank/DDBJ
BMBL; U40072; AAB16869.1; --
HSSP; P11215; 1BHQ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002035; VWF_A.
Pfam; PF010892; PG-GAP; 4.
Pfam; PF00092; Vwa; 1.
PRINTS; PR001185; INTEGRINA.
SWART; SM00191; Int alpha; 4.
SWART; SM00191; Int alpha; 4.
SWART; SM00191; Int alpha; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                64.4%;
78.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           102440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         920 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Simil
hes 722; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             118
                                                                          721
                                                                                                               619
                                                                                                                                                   781
                                                                                                                                                                                          619
                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                       739
                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                   799
                                                                                                                                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                                                                                                                                                              859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Loca
Matches
```

ò a

```
306;
                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 56.1%; Score 3297.5; Best Local Similarity 56.2%; Pred. No. 1.2e-Matches 641; Conservative 174; Mismatches
                                                                                                                                                                                                                                                                                                                                                              PRINTS; PRO1185; INTECRINA.
PRINTS; PR01453; VWFADOMAIN.
SWART; SM0191; Int alpha; 4.
SMART; SM00127; VWA; 1.
PROSITE; PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                                                                                                                                                            MGD; MGI:96609; Itgax.
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002035; VWF A.
Pfam; PF01839; FG-GAP; S.
Pfam; PF00357; Integrin_A; 1.
                                                                                                                                                                                                                                                                                                                                                        Pfam; PF00092; vwa; 1.
                                                                                                                                                                                                             Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                   Integrin.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              199
                                                                                                           1095
                                                                                                                                    'n
                                                                                                                                   RESULT
Q9QXH4
                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                     셤
                                                                       ద
                                                                                     ò
                                                                                                       셤
                     જે
                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                    120
                                                                                                                                                                                                                                                       317
                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                     180
                                                                                                                                                                                    197
                                                                                                                                                                                                     240
                                                                                                                                                                                                                      257
                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                       377
                                                                                                                                                                                                                                                                                                                        437
                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                        497
                                                                                                                                                                                                                                                                                                                                                                                          556
                                                                                                                                                                                                                                                                                                                                                                                                           909
                                                                                                                                                                                                                                                                                                                                                                                                                           616
                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                           919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF 900
                                                                                                                                                    137
                                                                                                   9
                                                                                                                  79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         797 SNLELNAEVWWNDGEDSYGTTVTFSHPAGLSYRYVAEGQKQQQLRSLHLTCDSAPVG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901 QLELPVKYAVYMVTSHĠVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                   1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                              20 FNLDTEELTAFRVDSAGFGDSVVQYANSWVVGAPQKITAANQTGGLYQCGYSTGACEPI
                                                                                                                                    RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                              RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                               TOGEKFGDPLGYEDVI PELDREGVI RYVLGFGDA FRSEKSROELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                        NFEALKTVQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                  PRGQRARWQCDAVLYGEGGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVXLF
                                                                                                                                                                                                                                                                                                                                                                                   HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                    PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                     YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                    Gaps
                                                                                    9
                                                                                   Indela
                                   EMBL/GenBank/DDBJ databases
                                            -.
MW; A17B484FEFC79EB6
                                                                 Query Match

58.8%; Score 3457; DB 4;
Best Local Similarity 60.7%; Pred. No. 1.7e-247;
Matches, 685; Conservative 143; Mismatches 295;
                          Strausberg R.;
Submitted (SEP-2002) to the
EMBL; BC038237; AAH38237.1;
SEQUENCE 1169 AA; 128521
                                                                                                                                                                     FPEALRGCPOEDSDIAFLI
          FROM N.A
                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                            557
                                                                                                                                                                                                                                                                                                                                                          438
                                                                                                                                                                                                                                                                                                                                                                                          498
                                                                                                                                                                                                                                                                                                                                                                                                                                                           617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                      61
                                                                                                                                                     80
                                                                                                                                                                     121
                                                                                                                                                                                                                      198
                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
  임
                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                   8 S
                                                                                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                   ઠે
                                                                                                                  g
                                                                                                                                    ò
                                                                                                                                                 셤
                                                                                                                                                                  ठे
                                                                                                                                                                                  요
                                                                                                                                                                                                S G
                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                   ò
```

```
7;
                                                                                                                                  1079
                                        1019
                                                                                     1034
                                                                                                                                                                             1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN 300
974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     80 SLQVPPEAVNISLGLSLAAATNPSWLLACGPTVHHTCRENIYLTGLCFLLSSSFKQS-QN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGLRKWYRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                          VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                  PPFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                             Eukaryota; Merazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
NCDI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

Handy X., Gorski K., Tong C., Rattis F.-M., Tseng S.-Y., Pardoll
Tsuchiya H.;

"Isolation of Genes Selectively Expressed by Dendritic Cells.";

"Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.

EMBL; AF211864; AAF23492.1;

HSSP; P11215; 1BHQ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           56.1%; Score 3297.5; DB 11; Length 1169; 56.2%; Pred. No. 1.2e-235;
                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1169 AA; 129150 MW; C616412033C219A6 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                     Q9QXH4 PRELIMINARY; PRT; 1169 AA.
Q9QXH4;
Q1-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
Leukocyte adhesion glycoprotein p150,95 alpha integrin
```

```
2 NLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPIR
                                                                                                                                                                                                                                                                                                                           21 NLDVEEPIVFREDAASFGQTVVQFGGSRLVVGAPLEAVAVNQTGRLYDCAPATGMCQPIV
                                                                                                                                                                                                                                                                                                                                                         LQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQKF
                                                                                                                                                                                                                                                                                                                                                                        200 THFTFTEFKNILDPQSLVDPIVQLQGLTYTATGIRTVMEELFHSKNGSRKSAKKILLVIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 380 AFLYPPNTRPTFINMSQENVDMRDSYLGYSTAVAFWKGVHSLILGAPRHQHTGKVVIFTQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EARHWRPKSEVRGTQIGSYFGASLCSVDVDRDGSTDLVLIGAPHYYEQTRGGQVSVFPVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       500 -GVRGRWQCEATLHGEQGHPWGRFGVALTVLGDVNGDNLADVAIGAPGEEESRGAVYIFH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                     182 IHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKVAFKILFLLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DGEKFGDPLGYEDVI PELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQANN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFRQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NTGMWESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTSGSGISPSHSQRIAGSKUSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTY
                                                                                                                                                                                                                                                                                        13; Gaps
                                                                                                                                                                                                                                                              Query Match 54.9%; Score 3225.5; DB 11; Length 1161; Best Local Similarity 57.2%; Pred. No. 2.6e-230; Matches 645; Conservative 163; Mismatches 306; Indels 13;
                                                "Cloning of rat alpha D, a novel beta 2 integrin.";
Submitted (AUG-1997) to the EMBL/GenBank/DDBJ databases.
EMBL; AF021314; AAF21241.1; -.
HSSP; P11215; 1BHQ.
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002035; VWF_A.
                                                                                                                                                                                                                                        2258491A984A705E CRC64;
                             Dietsch
               STRAIN=Sprague-Dawley;
O'Brien M.M., VanderVieren M., Kilgannon P.D.,
Gallatin W.M.;
                                                                                                                  Pfam; PF01839; FG-GAP; S.
Pfam; PF00357; integrin_A; 1.
Pfam; PF00095; vwa; 1.
PRINTS; PR00453; VWFADOMAIN.
PRINTS; PR00191; INTEGRINA.
SMART; SM00191; Int alpha; 4.
SMART; SM00127; VWA; 1.
PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                                                                                       1161 AA; 126600 MW;
                                                                                                                                                                                                                             Integrin.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                 81
                                                                                                                                                                                                                                                                                                                                                                                                        122
                                                                                                                                                                                                                                                                                                                                                                                                                               140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         542
      요
                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCS 1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 780
TDGRKQGDNLSYDSVIPMAEAASIIRYAIGVGKAFYNEHSKQELKAIASMPSHEYVPSVE 318
                                                                                                ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 480
                                                                                                                                             557
                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                        999
                                                                                                                                                                                                                                                                                                                                                735
                                                                                                                                                                                                                                                                                                                                                                                            795
                                                                                                                                                                                                                                                                                                                                                                                                                                          855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            914 NNVPGTPKTTFQLELPVKYAVYTMISSHDQFTKYLNFSTSEKEKTSVVEHRFQVNNLGQR 973
                                    GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                          HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                      P-GVGSRWHCGTTLHGEQGHPWGRFGAALTVLGDVNGDSLADVAIGAPGEEENRGAVYIF
                                                                                                                                                                                                                                                                                      YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                   NNMPRINKTEFQLELPVKXAVYMVVTSHGVSTKYLNFTASE-NTSRVMQHQYQVSNLGQR
                                                                                                                                                                            PRGORARWOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                         PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                  GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQ-------NORSORSWR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                LACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IAVCORIOCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAY-2000 (TrEMBLrel. 13, Crea 01-MAY-2000 (TrEMBLrel. 13, Last 01-MAR-2003 (TrEMBLrel. 23, Last Alpha D integrin.
Rattus norvegicus (Rat).
Eukaryota, Metazoa; Chordata; Cr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=10116,
                                                            319
                                                                                                        379
                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                         501
                                                                                                                                                       439
                                                                                                                                                                              481
                                                                                                                                                                                                    499
                                                                                                                                                                                                                                                  558
                                                                                                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                                                                                                             919
                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                          736
                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q9QYE7
Q9QYE7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 0
                                                                                                  a
                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                        8 8 6 8
                                                                                                                                                                                                                                                                                                                                                                                    8
6
8
                                    ò
                                                                                                                             9 6
                                                                                                                                                                    ें
                                                                                                                                                                                                                        $ A
                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
```

ģ

61 80 121

181

241 259 301 319 361 379 421 439 481 499 541 558 601

296

414

532 545 592 603 651 661 711 767 779 821 831 887 939

g ò a ò g ò 셤 ઠે 엄 ò

```
PSSE---AEQPCLPGV-----QFRCPIVF---RREILIQVTGTVELSKEIKAS-STL 1045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHL 1049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALIT 1109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SLCSSLSVSFNSSKHFHLYGSKA-SEAQVLVKVDLIHEKEMLHVYVLSGIGGLVLLFLF 1104
                                                                                                  238
                                                                                                                             258
                                                                                                                                                                                   309
                                                                                                                                                                                                                356
                                                                                                                                                                                                                                            369
                                                                                                                                                                                                                                                                                                    429
                                                                                                                                                                                                                                                                                                                                472
                                                                                                                                                                                                                                                                                                                                                             489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       989
LLKANVTSEN-NMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   --PHSRMPVSCEEL--TEGSSLLTKTLKCNVSSPIFKAGQEVSLQVMFNTLLNSSWEDFV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       940 YQV---SNLGQRSLPISLVFLVPVRLNQTVIWDRPQ--VTFSENLSS----TCHTKE-RL
                                                           359 IITDGEASDKGNISAAHD-----ITRYIIGIGKHFVSVQKQKTLHIFASEPVEEFV
                                                                                                                                                                                                                                                                       DWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQHIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                533 NRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -QGAVYIFNGKPG-GLSPQPSQRIQGAQVFPGIRWFGRSIHGVKDLGGDRLADDVVVGPEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAG-EVRVCLHVQKSTRDRLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EGQ1QSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNC1EDPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SPIVLRLNFSLV---GTPLSAFGN-LRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SPINVSLNFSLLEEEGTPRDQKGRAMQPILRPSIHTV-TKEIPFEKNCGEDKKCEANLTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TPSFMSLDCLVVGGP-----REFNVTVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SSPARS-----GPLRLMSSASLAVEWTLSNSGEDAYWVRLDLDFPRGLSFRKVEMLQ-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORSORSWRLACESASSTEVSGAL-KSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKL
                                         KPPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEE
                                                                                                  FRIHFTFKEF-QNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILF
                                                                                                                                                          LLTDGEKF--GDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHV
                                                                                                                                                                                                                FQANNFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSY
                                                                                                                                                                                                                                                                                                                                  LVAMFR---QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AALYKLGFFKRQYKDMM-SEGGPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1050
              80
                                           120
                                                                                                                             199
                                                                                                                                                                                                                297
                                                                                                                                                                                                                                            310
                                                                                                                                                                                                                                                                                                     370
                                                                                                                                                                                                                                                                                                                                415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                990
                                                                      139
                                                                                                  180
                                                                                                                                                          239
                                                                                                                                                                                                                                                                         357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       음 중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    음 &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                     ઠે
                                                                   유
                                                                                                 ઠ
                                                                                                                       요
                                                                                                                                                     ઠ
                                                                                                                                                                                g
                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                      B. 6
                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                       8 8
                                                                                                                                                                                                                                                                                                                                                                                                            중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                              1019
                                                                                                                                                                                                                                                                         1029
                                                                                                                                                                                                                                                                                                     1079
                                                                                                                                                                                                                                                                                                                                  1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            37;
                                                                                                                                               --LRSSSCSINHPIFREGAKTTFWITFDVSYKAFLGDRLLLRAKASSENNKPDTNKTAFQ 912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                119
                                         795
                                                                       841
                                                                                                    854
                                                                                                                               901
                                                                                                                                                                                     LELPVKYAVYMVVTSHGVSTKYLNFTASENTSR-VMQHQYQVSNLGQRSLPISLVFLVPV 960
                                                                                                                                                                                                                972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQ
                                                                                                                                                                                                                                                                                                     PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                     LVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGG
                                PREFNUTVIVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVS
                                                                                                                               GALKSTSCSINHPIPPENSEVTFNITPDVDSKASLGNKLLLKANVTSENNMPRTNKTEFQ
                                                                                                                                                                                                       RINQTVIWDRPQVTFSENLSS-TCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                              1 FNLDTENAMIFQENA-RGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            91; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus (Mouse).
Rukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            . Match 25.7% Score 1512.5; DB 11; Length 1161; Local Similarity 33.7% Pred. No. 5.4e-103; les 394; Conservative 219; Mismatches 464; Indels 91;
                                                                                                                                                                                                                                                                                                                                                                             TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMM 1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS50234; VWPA; 1. |
SEQUENCE 1161 AA; 128240 MW; 86B102F7B209E431 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
STRAIN=DBA/2J; TISSUE=Spleen;
Ma R.Z., Teuscher C;
Submitted (MAY-1998) to the EMBL/GenBa
EMBL; AF065902; AAD25885.1;
HSSP, P20701; ILFA.
MGD; MGI:96606; Itgal.
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR0002035; VWF_A.
Pfam; PF01839; FG-GAP; S.
Pfam; PF01839; Integrin_A; I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pfam; PF00092; vwa; 1.
PRINTS; PR01185; INTEGRINA.
PRINTS; PR00453; VWFADOMAIN
SMART; SM00191; Int alpha; 5
SWART; SM00327; VWA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-NOV-1999 (TrEMBLrel. 12, 01-NOV-1999 (TrEMBLrel. 12, 01-JUN-2002 (TrEMBLrel. 21,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Integrin alpha L.
                                                                                                                                                                                                                913
                                                                                                                                                                                                                                            961
                                                                                                                                                                                                                                                                         973
                                                                                                                                                                                                                                                                                                                                  1030
                                                                                                                                                                                                                                                                                                                                                              1080
                                                                                                                                                          855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                      902
                                                                                                                               842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q9WTV4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q9WTV4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 7
Q9WTV4
```

g

g

ò

SO DE REPORTED DE LA PROPERTICIO DE LA PERTICIO DEL

a

ò

ò

651 661 711 720 767 779 821 831

```
SHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLL 1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S-----SEAEPCLPGV--QFRCPIVF---RWEILIQVTGTVELSKEIKAS-STLS 1045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                888 ELNGTVHCENENSSLQEDNSAATHIPVLYPVNILTKEQENSTLYISFTPKGPKTQQVQHV 947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   --PHSRMPVSCEEL--TEGSSLLTKTLKCNVSSPIFKAGGEVSLQVMFNTLLNSSWEDFV 887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    881 LLKANVISEN-IMPRINKIEFQLELPVKYAVYMVVISHGVSTKYLNFIASENISRVMQHQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   940 YQVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQ----VTFSENLSS----TCHTKE-RLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1051 IVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITA
                                   |:|
|SEVETY---QREQSLFEWVSELQGDPGYPLGRFGAAITALTDINGDRLTDVAVGAPLEE-
                                                                                                                                               |::| |:||:||: | : |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |
                                                                                                                                                                                                                                                                                                                                                                                  TPSFMSLDCLVVGGP-----REFNVTVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORSORSWRLACESASSTEVSGAL-KSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKL
  GQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEED
                                                                                                                    NRGAVYLFHGTSGSGI SPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQG
                                                                                                                                                                                                                                   593 HVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAG-EVRVCLHVQKSTRDRLR
                                                                                                                                                                                                                                                                                                                                                    EGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SPIVLRINFSLV---GTPLSAFGN-LRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SSPARS-----GPLRLMSSASLAVEWTLSNSGEDAYWVRLDLDFPRGLSFRKVEMLO-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CIA1.
Cyprinus carpio (Common carp).
Cyprinus carpio (Common carp).
Bukaryots, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Actinopterygii; Neopterygii; Teleostel; Ostariophysi; Cypriniformes;
Cyprinidae; Cyprinus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      carp.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Kimura M., Nakao M., Miura C., Fujiki K., Yano T.;
"Molecular cloning of a leukocyte integrin from the common (Submitted (SEP-2000) to the EMBL/GenBank/DDBJ databases.
BMBL; AB048536; BAB39134.1; -.
HSSP; P20701; LIFA.
InterPro; IPR001969; Aspprotease site.
InterPro; IPR000413; Integrin_alpha.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ALYKLGFFKRQYKDMM-SEGGPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ALYKVGFFKRNLKEKMEADGGVPNGSP 1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
TISSUE=Peritoneal exudate cells;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JUN-2001 (TrEMBLrel. 17, 01-JUN-2001 (TrEMBLrel. 17, 01-MAR-2003 (TrEMBLrel. 23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1105
                                                                                                                    533
                                                                                                                                                                                                                                                                                                                                                    652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      O98TF1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DATION OCCORDITION OF THE PROPERTY AND THE PROPERTY AND THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PR
                                            셤
                                                                                                              ઠે
                                                                                                                                                           셤
                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                    원 · 장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60 IRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQ 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEE 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                310 KILDTFEKLKDLFTDLQRRIYALEGTNRQDLTSFNMELSSSGISADLSKGHAVVGAVGAX 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24 YNLDTRPTQSFLAQAGRHFGYQVLQIEDG-VVVGAPGE---GDNTGGLYHCRTSSEFCQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ONRPAYQECMKGKVDLVFLFDGSQSLDRKDFEKILEFMKDVMRKLSNTSYQFAAVQFSTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FRIHFTFKEF-ONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   199 CRIEFTFLDYVKQNKAPDVLLGSVQPMFLLINTFRAINYVVAHVFKEESGARPDAIKVLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LLTDGEKF--GDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FOANNFEALKTVONOLREKIFAIEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LVAMFR--QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-11LRNRVQSLVLGAPRYQHIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 FNLDTENAMTFQENA-RGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                               Craniata, Vertebrata, Euteleostomi,
Sciurognathi, Muridae, Murinae, Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1160;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
STRAINCSTBL/GJ; TISSUE=Spleen;
Submitted (MAY-1998) to the EMBL/GenBank/DDBJ databases.
EMBL AF065901; AAD25884.1;
HSSP P20701; 1LFA.
MGD; MGJ:9666; Itgal.
Interpro: IPR00413; Integrin_alpha.
Interpro: IPR00413; Integrin_A;
Ffam; PF01839; FG-GAP, 5.
Pfam; PF0037; integrin_A;
PRINTS; PR0185; INTEGRINA.
PRINTS; PR0453; VWFADOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SMART; SM00191; Inc. alpha; 5.
SMART; SM00327; VWA; 1.
PROSITE; PS00224; INTEGRIN ALPHA; 1.
PROSITE; PS50224; VWFA; 1.
SEQUENCE 1160 AA; 128127 WW; A33C531B139F1FAD CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                     Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            t; Score 1502; DB 11;
t; Pred. No. 3.2e-102;
218; Mismatches 467;
                                                                                                                                                  Z
LALYKVGFFKRNLKEKMEADGGVPNGSP 1132
                                                                                                                                                  1160
                                                                                                                                                                                                                                                                                                                                           Mus musculus (Mouse, Chordara, Eukaryota, Metazoa, Chordara, Mammalia, Eutheria, Rodentia, NCHI TaxID=10090,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ::||||
IITDGEASDKGNISAAHD
                                                                                                                                                                                                        01-MAY-2000 (TrEMBLrel. 13, 01-MAY-2000 (TrEMBLrel. 13, 01-JUN-2002 (TrEMBLrel. 21,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity Journative Matches 392; Conservative
                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                     (TrEMBLrel.
                                                                                                                                                                                                                                                                                        Integrin alpha L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120 k
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                               09R200
                                                                                      RESULT 8
Q9R200
g
                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
```

990

939

881

S.

```
OTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCORIO-----C 1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TDGS-----TDGS------ILFAAVQFST 117
                                                                                                                            939 PLNITYKVENSGRKDLPVSVTLTLPCQTPHVILTPHTFSMHEVHHSFISSYHQIIMCLLN 998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PIRLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        119 QKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EFRIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 FNLDTENAMTFQ - ENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KHLLFFSPELSAVQQVRSTGMSLREVEC-SQF--DLNKSSAVHFNLTADARLQNVKEYES
                                           LGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVTSHGV-STKYLNFTASENTSR
                                                                                                                                                                                                                  DIPFFGIQEE - - FNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels 175; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 =
                                                                                                                                                                                                                                                                                                                                                                                     Q96HB1;
Q1-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
Hypochetical protein.
Hypochetical protein.
Hukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                         |: :: |: : | : : | KYSPYEFRKDNVFSISAELNYNTSLYNOTS----SELKYNPH-----
                                                                                                                                                                                                                                                                          SQTETKVEPPEVPNPLPLIV-GSSVGGLLLLALITAALYKLGFPKRQYKD 1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1086;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1086 AA; 119223 MW; F6FF2546E8C632F9 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE=Lymph;
Strausberg R.;
Strausberg R.;
Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; BC008777; AAH08777.1; -.
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002035; VWF_A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -
                                                                                                  VMQHQYQVSNLGQRSLPISLVFLVPVR-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 22.8%; Score 1341.5; DB 4; Best Local Similarity 32.0%; Pred. No. 2.4e-90; Matches 374; Conservative 186; Mismatches 434;
                                                                                                                                                                                                                                                                                                                                                                           Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE; PS00242; INTEGRIN ALPHA; PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF01839; FG-GAP; 3.
Pfam; PF00357; integrin A; 1.
Pfam; PR01092; vwa; 1.
SMART; SM0191; Int alpha; 5.
SMART; SM00327; VWA; 1.
                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ::
_____
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hypothetical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                59
                                                                                                                                                                                      666
                                                                                                                                                                                                                                                                          1076
                                                                                                                                                                                                                                                                                                      1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    104
                                           918
                                                                                                    935
                                                                                                                                                          964
                                                                       882
                                                                                                                                                                                                                                                                                                                                                                           Q96HB1
                                                                                                                                                                                                                                                                                                                                              RESULT 10
Q96HB1
ID Q96HB
                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                 유
                                                                                                 ð
                                                                                                                       g
                                                                                                                                                       ઠે
                                                                                                                                                                                g
                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                      8
                                                                                                                                                                                                     39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              112
                                                                                                                                                                                                                                                                                                                     140
                                                                                                                                                                                                                                                                                                                                                                            199
                                                                                                                                                                                                                                                                                                                                                                                                                                    258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LQNQRSQRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDV---DSKAS 875
                                                                                                                                                                                                                                                                                                                                              113 NIRQOPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFS 172
                                                                                                                                                                                                                                                                                                                                                                                                      173 LMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFN-ITNGARK 231
                                                                                                                                                                                                                                                           88
                                                                                                                                                                                                                                                                                                                                                                                                                         200 AVQFSTDVRTVFDFNDYQSGSAEEKLAKE-THMKSLTNTHKAIDYILKNLLNSMLSGADS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TERTSS---TGSLEKKLNVSLNLNVDVVRGMSRGFFDQSSVSRTLQQSVLLDSGSSCFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGND
                                                                                                                                                                                                                                                                                                                                                                KPPRDHVFQANNFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      : | | |:: | :: || || |: || || || || || EPKRNNTFYIKDYSGLKGLLDNLQKKIYNIEGSVDAQGRDRQKELSQSGFSVVYQEESVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              310 VGSVGSNDWRGALYEVTG-SGSDFKETEIIDPAVNXDSYMGYSTVLGMRRGVSLLFSGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        524 AIGAPGEEDNRGAVYLFHGTSGSGISPSHS-QRIAGSKLSPRLQYFGQSLSGGQDLTMDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        643 QKSTRDRLREGQIQSV- - VIYDLALDSGRPHSRAVFNETKNSTR---RQTQVLGLTQTCET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NICODDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVST
                                                                                                                                                                                                                                                   CO -- RLORPGSESVRFFCMSAAVSSAALTS -- -- CSPYFPHECDGNSYLNGVCYQFSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAFKILFLLTDGEKFGDPLGYED - - VIPELDREGVIRYVLGFGDAFRSEKSRQELNTVAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QTRGGQVSVCPLPRGQRARWQCDAVLYGEQ-----GQPWGRFGAALTVLGDVNGDKLTDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SQ-----PRIEGRLYVYSLSEQKYFQKTLNVSQSTTGRFAASVASLKDLNGDGLSDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 583 LVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CEPIRLQVP----VEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMN-DAYLGYAAAIILRNRVQSLVLGAP
                                                                                                                                                                                                                                FNLDTENAMTFQENARG-FGQSVVQLQ-GSR--VVVGAPQEIVAANQRGSLYQCDYSTGS
                                                                                                                                                                          Length 1196;
                                                                                                                                                                                                     Indels
                                                     PRINTS; PRO1185; INTECRINA.
PRINTS; PRO453; VWFADOMAIN.
SMART; SMO0191; Int_alpha; 5.
SWART; SMO0191; Int_alpha; 5.
SWART; SMO0191; Int_alpha; 5.
SWART; SMO0191; Int_alpha; 5.
SWART; SMO0191; Int_alpha; 1.
SPROSITE; PSO114; ASP PROFEASE; 1.
SROUGNCE 1196 AA; 132477 MW, 9369C807E7DCA53B CRC64;
                                                                                                                                                                       23.5%; Score 1382; DB 13; llarity 31.0%; Pred. No. 2.8e-93; Conservative 226; Mismatches 451;
 InterPro; IPR002035; VWF A. Pfam; PF01839; FG-GAP; 5. Pfam; PF00357; integrin A;
                                           Pfam; PF00092; vwa; 1.
                                                                                                                                                                        Query Mátch
Best Local Similarity
Matches 369; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                232
                                                                                                                                                                                                                                                                                         57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 171
 g
                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
```

37;

28 81 118 103

```
141 SL-QAVSNFTAAYQECSKREVNLVFLFDGSSSMKAVEFDMNKNFIKDVMKKLSNSSIKFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CK--RLORPGSESVRFFGMSAAVSSAALTS-----CSPYFAHECDGNSYLNGVCYOFNS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NLRQQPQKFPEALRGCPQEDSDIAFLIDGSGS11PHDFRRMKELVSTIMEQLKKSKTLFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFN-ITNGARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         200 AVQFSTEIRTVFDFNDYQNGSAEEKLMKE-RHMKSLTNTYKAINYVLKOVLNSVSSGADP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           259 NAQKALVIITD----GDPSDNDDYNILNICDEQNILRYIIGVG-----KVDLTTLTGLAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               467 YE-QTRG-GQVSVCPLPRGQRARWQCDAVLYGEQ--GQPWGRFGAALTVLGDVNGDKLTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YQSQPRAEGRLYVYTL----SEQYSQKTLQSTTGRFATSLASLKDLNGDGLSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VAIGAPGEEDNRGAVYLFHGTSGSGISPSHS-QRIAGSKLSPRLQYFGQSLSGGQDLTMD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 FNLDTENAMTFQENARG - FGQSVVQLQ - GSR - - VVVGAPQEIVAANQRGSLYQCDYSTGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CEPIRLQVP----VEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAFKILFLLTDGEKFGDPLGYED--VIPELDREGVIRYVLGFGDAFRSEKSRQELNTVAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   290 KPPRDHVFQANNFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      350 LSTVGSYDWAGGVFLYT---SKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLG
                                Cyprinus carpio (Common carp).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Cyprinus.
NCBI_TaxID=7962;
                                                                                                                                                                                                                                                                                                                                                                                                        DB 13; Length 1187;
                                                                                                                 SEQUENCE FROM N.A.
TISSUBE-PETITONEAL exudate cells;
Kimura M., Fujiki K., Nakao M.;
"Molecular cloning of a leukocyte integrin from the comm Submitted (SEP-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AB048537; BAB39135.1; -.
HSSP; P20701, 1LPA.
                                                                                                                                                                                                                                                                                                                                                                           1187 AA; 131778 MW; 85EDC7CA8B6B1C59 CRC64;
01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 22.6%; Score 1329.5; DB 13
Best Local Similarity 31.0%; Pred. No. 2.2e-89;
Matches 369; Conservative 210; Mismatches 456;
                                                                                                                                                                                                           InterPro; IPR001969; Aspprotease sit
InterPro; IPR000413; Integrin_alpha
InterPro; IPR002035; VWF_A.
                                                                                                                                                                                                                                                                                                                               PROSITE; PS00141; ASP PROTEASE; 1. PROSITE; PS50234; VWFĀ; 1. SEQUENCE 1187 AA.
                                                                                                                                                                                                                                                 Pfam; PF01839; FG-GAP; 5.
Pfam; PF00357; integrin_A; 1.
Pfam; PF00092; vwa; 1.
                                                                                                                                                                                                                                                                                             PRINTS; PR01185; INTEGRINA.
PRINTS; PR00453; VWFADOMAIN.
SWART; SW00191; Int_alpha; 5.
SWART; SW00327; VWA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    523
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 윤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SHSD--FLAELRKAPVVNÇSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNH 1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       410
                                                                                                                                                                                                                                                                                                                                                                                                                                                            762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGFLDLKADLODDTFIGNEPLTPEVRAGYLGYTVTWLPSROKTSLLASGAPRYQHMGRV 350
                                                                                                                                                                                     474
                                                                                                                                                                                                                                                                   464
                                                                                                                                                                                                                                                                                              533 NRGAVYLFHGTSGSGISP$HSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQG 592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DDLSITESFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQ 822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPV
                                                                                                                                                                                                                                                                                                                                                                                                                         SYKTEFDFSDYVKRKDPDALLKHVKHMLLLTNTFGAINYVATEVFREELGARPDATKVLI
                                                                                                                                                                                                                                          VSVCPLPRGQRARWQCDAV--LYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEED
                                                                                                                                                                                                                                                                                                            SPIVLRINFSL - - - VGTPLSAFGN - - - - - LRPVLAEDAQRLFTALFPFEKNCGNDNICQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RSORSWRLACES -- ASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LLKANVTSENN - - - - MPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QHQYQV---SNLGQRSLP ISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTK--ERLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LLIVSTAEILFNDSVFTLLPGGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALI
                         LLTDGEKFGDPLGYEDVI PELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQ
                                       ANNFEALKTVONOLREKIFALEGTOTGSSSSFEHEMSQEGFSAALTSNGPLLSTVGSYDW
                                                                                                                                AGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQHIGLV
                                                                                                                                                                                     AMFR -- QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQ
                                                                                                                                                                                                                                                                                                                                                   593 HVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVV-KGKEAGEVRVCLHVQKSTRDRLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Created)
Last sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TAALYKLGFFKRQYKDMMSEG-GPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1024 FIVLYKVGFFKRNLKEKMEAGRGVPNGIP 1052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          924 DAAEPCLPGALFRCPVV-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   098TF0;
01-JUN-2001 (
01-JUN-2001 (
                                                                                                     231
                                                                                                                                                                                                              351
                                                                                                                                                                                                                                                                                                                                                                                                        652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1109
                         239
                                                                                                                                   359
                                                                                                                                                           291
                                                                                                                                                                                                                                          475
                                                                                                                                                                                                                                                                   411
                                                                                                                                                                                                                                                                                                                        465
                                                                                                                                                                                                                                                                                                                                                                                                                                   581
                                                                                                                                                                                                                                                                                                                                                                                                                                                            712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q98TF0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 11
Q98TF0
ID Q98TF
AC Q98TF
DT 01-JU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                d
                                                                                               엄
                                                                                                                               ò
                                                                                                                                                 g
                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                      6 B 6
                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                               8 8
                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 %
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                       ò
                                                                            ઠે
                                                                                                                                                                           õ
```

43;

99 88 112 140 172 199 231 289 309 349 406 426 466 522 535

469

236

353 176 411 589 410 646 470 706 525

353

us-09-902-481b-3.rspt

g ò

```
CHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYI 1042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RVMQHQYQV----SNLGQRSLPISLVFLVPVRLNQTVI----WD----RPQVTFS-ENLSST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HHVKHIYQVRIQPSNYDNMP-PLEALVRVPRVHSEGLITHKWSIQMEPPVNCSPRNLESP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGL
                                                                                                                                                                                          177 GAKDWAGGFLDLKADLKSSTFVGNEPLTVESRAGYLGYTVTRLPSRGTMSLLATGAPKYQ
                                                                                                                                                                                                                                                                                                                                         QRSQRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LKANVTS - - - - - - ENNMPRINKTEFQLELPVKYAVYMVTSHGVSTKYLNFTASENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         814 SDEAE-----SCSFGT--EFRCPIDF---RQEILVQVNGMVELRGTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    234 FKILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPR
                                                                                                                                                                                                                                      HIGLVAMFRQ--NTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQ
                                                                                                                                                                                                                                                             TRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPG
                                                                                                                                                                                                                                                                                                                                                                                                 EEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVG
                                                                                                                                                                                                                                                                                                                                                                                                                        AQCHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAG-EVRVCLHVQK--ST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ----FQGHLVANLTYTLQLDGHRTRSRGLFPGGKHKLIGNTAVTPV-KSCFVFWFHFPIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IEDPVSPIVLRINFSL---VGTPLS--AFGNLRPVLAEDAQRLFTALFPFEKNCGNDNIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QDDLSITFSFMSLDCLVVGGPREPNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EADLKLAFSDMRSKILRLTPSASLSVRLTLRNTAEDAYWVQVTLSFPQGLSFRKVEIL--
                          EFVKILDTFEKLKDLFTELQKKIYVIEGTSKQDLTSFNMELSSSGISADLSEGHGVVGAV
                                                                                                                                                         GSYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQ
                                                                            DHVFQANNFEALKTVQNQLREKI FAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LLLALITAALYKLGFFKR 1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08,
08,
23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (TrEMBLrel. C
(TrEMBLrel. C
(TrEMBLrel. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   O88340,
O88340;
O1-NOV-1998 (
O1-NOV-1998 (
O1-MAR-2003 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   606
                                                                                                                                                                                                                                                                                                                       470
                                                                                                                                                                                                                                                                                                                                                                                                                                           354
                                                                                                                      117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    983
                                                                                                                                                                                                                                            412
                                                                                                                                                                                                                                                                                                                                                                                                    530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         471
                                                                                                                                                             354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 13
088340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              යි යි
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                         용
                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                   윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                             g
                                                                                                                                                     ò
                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                         કે
                                     음
                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ----SFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPG-QGA 1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PSHSDFLAELRKAPVVNC--------SIAVCQRIQCDIPFFGIQEE 1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                233
                                                                                                                          708
                                                                                                                                                                                                                                              813
                                                                                                                                                                                                                                                                                    819
                                                                                                                                                                                                                                                                                                                           870
                                                                                                                                                                                                                                                                                                                                                                                                        929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    63
      641
                                           651
                                                                                   697
                                                                                                                                                               753
                                                                                                                                                                                                       761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                174 MOYSEEFRIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DRGPKPLNIIYKVVNLGLKGLPVSVTLSLPCQ------TTHVTLTPHNFSMQ
                                                                                                                                                                                                                                                                                                                                                                                                                                 DYDWSDRMEMIITANSDNNGNM---SDMSVRRSIPVQFAVELAISLVAEDSVTYLNFSLE
      GLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLH
                             VQKSTRDRLREGQIQSV -- VTYDLALDSGRPHSRAVFNETKNSTR -- RQTQVLGLTQTCE
                                                                                                           | : | : | : | : : | | : : | | : : | | : : | : | : : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | 
                                                                                                                                                                 698 TLKLOLPNCIEDPVSPIVLRLNFS----LVGTPLSAFGNLRPVLAEDAORLFTALFPFEK
                                                                                                                                                                                          NCGNDNICQDDLSITESFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSY
                                                                                                                                                                                                                                                                     RKVSTLONORSORSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDV---
                                                                                                                                                                                                                                                                                                                                                              -- SSCGDRDSGATNRTTCSINLPVYRSGTTTQFLGTFRVTKW
                                                                                                                                                                                                                                                                                                                                                                                                        DSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGV-STKYLNFTAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ENTSRVMQHQYQVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EVHHSFISSYHQ--1IMCLLNKHLFFSPELSAVQTRTTGRSLWVC-----VSSISTGEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD 1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Cetartiodactyla, Ruminantia, Pecora, Bovoidea,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
Thumbikat P., Kannan M.S., Maheswaran S.K.;
"Sequence of the alpha subunit of bovine lymphocyte function-
associated antigen 1.";
Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AF440778; AAN63636.1;
NON TER 1
NON TER 927 927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21.5%; Score 1264; DB 6; Length 927; 34.7%; Pred. No. 1.1e-84; tive 165; Mismatches 388; Indels 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            927 AA; 102523 MW; 02E2CF09917081EC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-MAR-2003 (TrEMBLrel. 23) Created)
01-MAR-2003 (TrEMBLrel. 23) Last sequence update)
01-MAR-2003 (TrEMBLrel. 23) Last annotation update)
Lymphocyte function-associated antigen 1 (Fragment)
Bos taurus (Bovine)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                        820 SKFDAIKPSRTR-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FNATLKGNL-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bovidae, Bovinae, Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity
Matches 339; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                             814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1083
                                                                                                                                                                                                                                                                                                                                                                                                            871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                  754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q8HZV0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                  a
                                                                                                                                                         ò
                                                                                                                                                                                              g
                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

585 821 643 881

761

933 754 982

701

969

750

810

868

809

1

```
986 KERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTS 1045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1046 HNHLLIVSTA-----EILFNDSVFTLLPGQGAFVRSQTETKVEPF----EVPNPLPLIV 1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 972 SPSDHKEFFFNVHGENLFGAVFQLQICVPIKLQDF-----QIVRVKNLTKTQDHTECTQ 1025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     931 NTSRVMQHQYQVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSST----CHT 985
                                                                                        871 DSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASE 930
                                                                                                                                                                                                                                                                                                                                                                                                 811 LSYRKVSTLONORSORSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDV 870
                                                                                                                                                                                                                                                                                                                                                                                                                          597 LRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVOKS----TRDRLREG
                                                                                                                                                                                                                                                                                                              751 FEKNCGNDNICQDDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLD
                                                                                                                                                                                       716 PLNFTVDVDV------TKQRQRLQCEDSSGCQSCLRKWNGGSFLCEHFWLI
                                                                                                                                                                                                                                                                                                                                        ETLKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLR----PVLAEDAQRLFTALF--P
                                                                                                                                                                                                                                                             Rattús norvēgicus (Rat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   subunits:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=98056820; PubMed=9394838;

MEDLINE=98056820; PubMed=9394838;

MEDLINE=98056820; PubMed=9394838;

MEDLINE=98056820; PubMed=9394838;

MEQUENCE analysis of rat integrin alpha E1 and alpha E2 subunities between intraepithelial lymphocytes and dendritic cells in lymph.";

ENT. J. Immunol. 27:30703079(1997).

MEMBL; AF020046; AAC23663.1; -...

MESP; F11215; 1BHQ.

RICEPPO: IPR000413; INTEGRIN_alpha.

RICEPPO: IPR002035; VWF_A.

REAM; PF01839; FG-GAP; 4.

REAM; PF01839; FG-GAP; 4.

REAM; PF01839; VWFADOMAIN.
                                                                                                                                              654 QIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1998 (TrEMBLrel. 08, Created)
01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1096 GSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Integrin alpha E2 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=10116;
                                                                                                                                                                                                                                697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         088341;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    088341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 14
088341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                            ð
                                                                                                                                              ઠે
                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ::
133 LTPNLDLQAQAYFSDLEGFLDPGAHVDSGDYCRSKGGSTGEEKKSARRRTVEEEDEEED 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           - SEDAFVRRIEGEQMGSYFGSVLCPVDIDMDGTTDFLLVAAPFYHIRGEEGRVYVYQVPE 547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -QDASFSLAHTLSGHPGLTNSRFGFAMAAVGDINQDKFTDVAIGAPLEGFGAGDGASYGS 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STGSCEPIRLQVPVEAVNM$LGLSLAATT--SPPQLLAC-GPTVHQTCSENTYVKGLCFL 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQANNFEALKTVQ 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGP-LLSTVGSYDWAGGVFLY-TS 367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KEKSTFINMT-RVDS-DMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGM 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WESNA---NVKGTQIGAY#GASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPR 482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    537 VYLFHGTSGSGISPSHSQRİAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLL 596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20 FNMDVDWAWVTALQPGAPAVLSSLLHLDPSN-----NQTCLLVARRSSNRNTAALYRCAI 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SI-SPDEIACQ-PVEHICMPKGRYQGVTLVGNHNGVLVCIQVQARKFRSLNSELTGACSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ::|| | ::||||| | | ||: | :||:|
| GTEIAIVLDGSGSIEPSDFQKAKNFISTMMRNFYEKCFECNFALVQYGAVIQTEFDLQES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SKLQQRIVHMEGT----VGDALQYQLAQTGFSAQILDKGQVLLGTVGAFNWSGGALLYSTQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GORARWQCDAVLYGEQGOPWGRFGAALTVLGDVNGDKLTDVAIGAP-----GEEDNRGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -----PQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQL - - KKSKTLFSLMQYSEEFRIHFTFKEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QNNPNPRSLIKPITQLLGR|THTATGLRKVVRELFNITNGARKNAFKILFLLTDGEKFGDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FNLDTENA - - MTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGS - - - - - LYQCDY
                                         Craniata, Vertebrata, Euteleostomi,
Sciurognathi, Muridae, Murinae, Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 28.7%; Pred. No. 1.7e-75;
Matches 354; Conservative 213; Mismatches 461; Indels 205; Gaps
                                                                                                                                                                                          subunits:
                                                                                                                  MEDLINE-98056820; PubMed=9394838;

MEDLINE-98056820; PubMed=9394838;

MEDLINE-98056820; PubMed=9394838;

Bretann M., Rees D.J.G. rat integrin alpha El and alpha E2 subunit

T "Sequence analysis of rat integrin alpha E1 and alpha E2 subunit

I intrapple helial lymphocytes and dendritic cells in lymph.";

T intrapple helial lymphocytes and dendritic cells in lymph.";

R EMBL, AF020045; AA23662.1;

R HSSP: P11215; 1BHO.

R InterPro; IPR002045; VWFA.

R Pfam; PF01839; FG-GAP; 4.

R Pfam; PF01839; Integrin_A; 1.

R Pfam; PF00185; INTEGRINA.

R PRINTS; PR01185; WWFADOWAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           SMART; SM00191; Int_alpha; 4.
SMART; SM00327; VWA; 1.
PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS0234; VWFA; 1.
SEQUENCE 1167 AA; 128970 WW; D88A2C38ACDC2AAE CRC64;
                   Rattur norvegicus (Rat)
Eukaryota, Metazoa, Chordata,
Mammalia, Eutheria, Rodentia,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             110 FGSNLROOPOKFPEALRG-
  Integrin alpha El
                                                                                  NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   483
```

a

ò

g

ò a ò a ò g ò 요 ò q ò g ⋩ g ò g

ò

1039 1018

1122

)

ઠે

ò g ò õ

```
||:::: | |::: | | |:: | | |:: | | |:: | | |:: | | |:: | | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: | |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          58 EP-IRLOVP-----VEAV--NMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLC 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   oŧ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 NLDTENAMTFQENARG-FGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQCDYSTGSC
                                                                                                                                                                                                                                           -- ASVLVMNCKIGHPIL-KRSSVNVSVTWQLEESIFPNRTADITVTISNSNEKSLARETH
                                                                                                                           ---SLOFRHAFIAVLSR--PSVMYMN--TSOSSSDHKEFFFNVHGENHFGAVFQLQICVP
                                                                                                                                                                                                                                                                                                                          1019 IPPFGIQEEFNATL-----KGNLSFDWYIKTSHNHLLI---VSTAEIL----FNDSVFTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ALPHAl integrin.
Gallus gallus (Chicken).
Eukaryote; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                FQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                               VRLNQTVIWDRPQVTFSENLSST-CHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCD
                                                                                                                                                                                                                                                                                                                                                                                                                                                            LPGQGAFVRSQTETKVEPP----EVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sobue K.; "Spanner of the penotype-dependent transcriptional regulation the alphal integral of the alphal integral of the alphal integral of the alphal integral of the alphal integral of the alphal integral of the alphal integral of the alphal integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alpha integral of the alph
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE=Gizzard;
MEDLINE=97476270; PubMed=9334246;
Obata H., Hayashi K., Nishida W., Momiyama T., Uchida A., Ochi T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels 152;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1171;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1171 AA; 130228 MW; B505A4D65F09736E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ouery Match 17.6%; Score 1034; DB 13; Best Local Similarity 27.8%; Pred. No. 2e-67; Matches 338; Conservative 213; Mismatches 513;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRINTS; PRO1185; INTEGRINA.
PRINTS; PR00453; VWFADOMAIN.
SMART; SM00191; Int alpha; 4.
SMART; SM00327; VWA; 1.
PROSITE; PS00242; INTEGRIN_ALPHA;
PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-JAN-1998 (TrEMBLrel. 01-MAR-2003 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00092; vwa; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1147 KQLNLE 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-JAN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Integrin.
SEQUENCE
                                                                                                                                                                                                                                                                   1001
                                                                                                                                                                                                                                                                                                                                                                                                     1040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1123
                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  042094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 15
042094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઢ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                    ઠ
                                                                                                                       요
                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      899
                                                                                                                                                                                                                                                                                                         37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ::| ::|||||||||||::||::|| GDYYGSKGGSTGEETKSARRLRRQAVEEDBEEAGTEIAIVLDGSGSIEPSDFQRAKDF1 218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RSEKSRQELNTVASKPPRDHVFQANNFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMS 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DSNGSTDLVLIGAPHYYBQTRGGQVSVCPLPRGQRARWQCDAVLYGBQGQPWGRFGAALT 510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        :||:|| || ||||||||| ||:::||:::|| ||: |::|| ||:| |:::|| ||:|| |:::|| ||:|| |:::|| ||:::|| ||::|| ||:::|| ||::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::|| ||:::||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOYFGOSLSGGODLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECN 624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         158
                                                                                                                                                                                                                                                                                                                                                                                                                                    98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ---MAFKDKMDVELCFKVDSSAVPSEPGLRGMSLNFTVDVDV------TKQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     728 KORLOCADRSCCOSCLMKWSGGSSLCEHFGLISTEEEL-----CEDDCFSNITIKVSYE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ----TQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LVGTPLSAFGNLRPVLAEDAQRLFTALF - PFEKNCGNDNICQDDLSITFSFMSLDCLVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               F-QTSEERRNHPNPIL-+DHYKEPSAIFQLPYEKDCKNKVFCIAEIQLTTAISQQD-LVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGPREFNVTVTVRNDGEDSYRTOVTFFFDLDLSYRKVSTLONORSORSWRLACESASSTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          840 VSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 95 ------QTCSENTYVKGLCFLFGSNLRQQPQKFPEALRG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99 LVRNHNGVLVCIQVQSRKPRSLNSELTGACSLLTPNLDLQAQAYFSDLEGVLDLGASVNS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STIMEQL--KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RKVVRELFNI TNGARKNAFKI LFLL TDGEKFGDPLGYEDVI PELDREGVIRYVLGFGDAF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   279 QHVLDNIFIPSRGSRKKALKVMVVLTDGDIFRDPLNLTTVISSSKMQGVVRFAIGVGNAF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              336 OEGFSAAITSNGP-LLSTVGSYDWAGGVFLY-TSKEKSTFINMTRVDSDMNDA---YLGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             391 AAAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ----GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOVVKGKEAGEVRVCLHVQKS - - - TRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GITKEVTMNISLTNSGEDSYMTNMALNYPRNLOFKKI-----OKPLSPDIOCDDPKPV-
                                                                                                                                                                                                                                                                                                                                                                                                                                       ------ATSIIPDEIGCOPVEHILMPKGRYQGVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ---CPQED----SDIAFLIDGSGSIIPHDFRRMKELV
                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                         244;
                                                                                                                                                                                                                                        Length 1167;
                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                          47 LYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVH
                                                                                                                                                                              E3FED7E18B5CBBEC
                                                                                                                                                                                                                                        Query Match 18.7%; Score 1097; DB 11; Best Local Similarity 27.4%; Pred. No. 4.1e-72; Matches, 330; Conservative 205; Mismatches 427;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ::
::
                                                                              ä
          SMART; SM00191; Int_alpha; 4.
SMART; SM0327; VWA; 1.
PROSITE; PS00242; INTEGRIN ALPHA;
PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                              1167 AA; 128593 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         511 VLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               = -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRRO-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             339
                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                გ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                 SO RUE SO FT.
                                                                                                                                                                                                                                                                                                                                                                                                                                       ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

46;

										•					
167	220 249 275	308 335 368	390	488	548 554 607	614	672	727	782	842	898 929	949	1001	1054	1112
# OB FLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKS		GNL EMS EMS	QEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGY 		489 NRDSFTDLLLVGAPTYMGTEKEEGGKVYVYALNKTKFEYQMSLEPIKQTCCSPLKHDTCK : 498QGQPWG-RFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQ : -		EVARNVFECNDQVVKGKEAGEVRVCLH-LVQKSTRDRLREGQIQSVVTYDLALDSGRPHS	673 RAVFNETKNSTRRQTQVLGLTQTCETLKLQLENCIEDPVSPIVLRLNFSLVGTPL		783 REFNYTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSG	843 ALKSISCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPFRTNKT	899 BFOLELPVKYAVYMVISHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRS	LP-ISLVFLVPVRLNQTVIMDRPQVFFSENLSSTCHTKERLPSHSDFLAELRK     :		1055 AEILFNDSVFTLLPGQCAFVRSQTETKVEPFEVPNPLPL1VGSSVGGLLLALITAAL.

Qy 1113 YKLGPFKRQYKDMMSE 1128 :| | | | | | | | : Db 1156 WKAGPFKRPLKKKMEK 1171 Search completed: November 25, 2003, 14:20:26 Job time: 37.1068 secs

10     3423     58.2     1163     23     ABG61470     Human Beta2 integr       11     3421     58.2     1163     24     ABD07406     Protein differenti       12     3389     57.6     1161     16     AAR78166     Human beta-2 integ       13     3388     57.6     1161     19     AAR72049     Human at a pha-d. Homan at a pha-d	3388 57.6 1161 19 AAN57491 3388 57.6 1161 20 AAN73342 3388 57.6 1161 21 AAB07359 3388 57.6 1161 23 AB061468	3372.5 57.4 1101 18 AAWZ2054 3372.5 57.4 1161 19 AAWS2037 3372.5 57.4 1161 19 AAWS2106 3372.5 57.4 1161 20 AAW3343 3372.5 57.4 1161 21 AAB07376	3372.5 57.4 1161 23 ABG61485 3215.5 54.7 1161 16 AARY8169 3213.5 54.7 1161 18 AARY3162	3213.5 54.7 1161 19 AAW72824 3213.5 54.7 1161 19 AAW60004	3213.5 54.7 1161 21 AAB07374 3213.5 54.7 1161 23 ABG61483	3206.5 54.5 1161 19 AAM65104 3206.5 54.5 1161 20 AAM73345 3201 54.4 1161 18 AAM73061	3201 54.4 1161 19 AAW72836 3201 54.4 1161 19 AAW65103 3201 54.4 1161 19 AAW60003	3201 54.4 1161 20 AAW73347 3201 54.4 1161 21 AAB07373	3201 59.4 1161 23 ABG61482 3197 54.4 1161 16 AAR78168 3192 5 54.3 1151 18 AAW32059	3192.5 54.3 1151 19 AAN72834	3192.5 54.3 1151 19 AAW60001 RAC	ALIGNMENTS	RESULT 1	Innessors ID AAW65090 standard; Protein; 1153 AA. xx	AC AAW65090; xx	.DT 28-SEP-1998 (first entry)	DE Human Beta-integrin CD11b subunit protein.	KW Beta-integrin alpha-d subunit; human; modulator; treatment; psoriasis; KW type-I diabetes; atherosclerosis; multiple sclerosis; asthma; KW lung inflammation; acute respiratory distress syndrome; CD11b subunit; KW rheumatoid arthritis.		PN US5728533-A. XX	PD 17-MAR-1998. XX	07-JUN-1995; 95US-048	PR 07-JUN-1995; 95US-0485618. PR 23-DEC-1993; 93US-0173497. PR 05-AUG-1994; 94US-026689. PR 21-DEC-1994; 94US-036562.	(ICOS-) ICOS CORP.	XX Pr Gallatin WM, Van DER VIEREN M; XX	1
GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd. OM protein - protein search, using sw model	Run on: November 25, 2003, 14:08:29; Search time 36.2978 Seconds (without alignments) 4971.979 Million cell updates/sec	Title: US-09-902-481B-3 Perfect score: 5879 Sequence: 1 FNLDTENAMTFQENARGFGQFKRQYKDMMSEGGPPGAEPQ 1137	Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5	Searched: 1107863 segs, 158726573 residues	mber of hits sa	Minimum DB seq length: 0 Maximum DB seq length: 200000000	Post-processing: Minimum Match 10% Maximum Match 100% Listing first 45 Bummaries	Database : A_Geneseq_19Jun03;*	1: /SIDSI/gcgdata/geneseq/geneseqp-embl/AA1980.DAT:* 2: /SIDSI/gcgdata/geneseqq/geneseqqp-embl/AA1981.DAT:* 3: /SIDSI/crdara/caneseq/feneseqq-embl/AA1981.DAT:*	4: /SIDS1/gcgdata/ygeneseqp-emb1/AA1983.DAT:*	>: /Stubilgggated/genesegp-empi/Ahistori 6: /SIDS1/gcgdata/genesegp-embi/Ahi985.DAT:* 7: /SIDS1/gcgdata/genesegp/emesegp-embi/Ahi985.DAT:*	8: /SIDS1/gcgdata/geneseqp-embl/AA1987.DAT:* 9: /SIDS1/gcgdata/geneseqq-embl/AA1988.DAT:* 10: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1989.DAT:*	11: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1990.DAT:* 12: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1991.DAT:*	13: /SIDS1/gcgdada/geneseq/geneseqp-embl/AA1991.DAT:* 14: /SIDS1/gcgdada/geneseqcgeneseqp-embl/AA1993.DAT:*	16: /SIDS1/gcgdata/genesed/genesedp-emu1/m1571.ion. 16: /SIDS1/gcgdata/genesed/genesedp-emb1/AA1995.DAT:*	18: /SIDSI/19cgdate_ggenescq_jerms_/Al1997.DAT: 18: /SIDSI/19cgdate_ggenescq_jerms_embl/AA1997.DAT: 19: /CIDSI/Accessor//concessor/nencescq_penscq_jerms_embl/AA1999	20: /SIDS1/gegateta/geneeq/fembeeqp embl/A41999.DAT: 21: /sIDS1/gegateta/geneeqf/geneeqqp-embl/A41999.DAT: 21: /sings/angeseq/fembeeqqp	21: /SIDSI/gcgdata/geneseq/geneseqp_emul/AA2001.DAT: 23: /SIDSI/gcgdata/geneseq/geneseqp-embl/AA2001.DAT: 23: /SIDSI/gcgdata/geneseq/geneseqp-embl/AA2003.DAT: 24: /SIDSI/gcgdata/geneseq/geneseqp-embl/AA2003.DAT:	Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.	SUMMARIES	% Onerv	No. Score Match Length DB ID	1 5839 99.3 1153 19 AAW65090 Human Beta-integri 2 5839 99.3 1153 21 AAB07360 Human CD11b protei 3 5839 99.3 1153 23 AAB661469 Human Beta2 integr 4 5839 99.3 1153 23 AAB661469 Human Beta2 integr 5 5839 99.3 1153 23 AAB661469 Human beta2 integr 5 5839 99.3 1153 23 AAB661469	5839 99.3 1153 23 AAO14428 Integrin Mac-1 5829 99.1 1153 11 AAR04136 Alpha subunit	3437 58.5 1163 11 AAR07120 3423 58.2 1163 19 AAAW55091 3423 58.2 1163 21 AAM55091	ייייין אמטרייסטן איני סייר איני סייר איני סייר איני סייר איני סייר איני סייר איני סייר איני סייר איני סייר איני

```
1080
                                                                                                                                                                                                                                                                                                                                                                                                              1096
                                                                                                                                                                                                                                                                                                             1020
                                                                                                                                                                                                                                                                                                                                  840
                                                                                                                                                                            900
                                                                                                                                                                                                             916
                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                          976
                  736
                                               780
                                                                             196
                                                                                                                                            856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human, macrophage infiltration inhibition, alpha_d integrin, leukocyte integrin, Leu-CAM; leukointegrin, immune response; linflammation; leukocyte adhesion deficiency; LAD; Type I diabetes; atherosclerosis; multiple sclerosis; asthma; psoriasis; beta2 integrin; lung inflammation; acute respiratory distress syndrome; Crohn's disease; rheumatoid arthritis; central nervous system injury; CD11b.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             membrane-associated molecules that participate
                                                                                                                                                                                                                                                                                                                                                                                           1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSGTET
                                                                                                                                                                                                                                                                                                                                                                              PFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVPTLLPGQGAFVRSQTET
SLVGTPLSAPGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                 QLELPVKYAVYAVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                               RINGIVIWDRPQVIFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                  SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                    GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                              SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                             QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVPLVPV
                                                                                                               GPREFINVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ntibodies to inhibilate at central nervous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      monoclonal antibodies inflammation at centra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      integrin d n
and reduce i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Protein; 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Van Der Vieren
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human CD11b protein sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0193043.
99US-0350259.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US27139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fig 1; 270pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Integrins are a class of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Use of novel anti-alpha macrophage infiltration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         system injury sites
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2000-387751/33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB07360 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200029446-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gallatin MW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ICOS-) ICOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .;
2
                                                                                                                                                                                                                                                                                                               961
                                                                                                                                                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAB07360;
                                                  721,
                                                                                   737
                                                                                                                   781
                                                                                                                                                 797
                                                                                                                                                                                  841
                                                                                                                                                                                                                857
                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                               917
                                                                                                                                                                                                                                                                                                                                               977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                        ઠે
                                                                        셤
                                                                                                               ठ
                                                                                                                                              용
                                                                                                                                                                              ठे
                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                           This sequence represents a human beta-integrin CD11b subunit which is used to describe a method for identifying compounds that modulate the interaction of the beta-integrin alpha-d subunit with a binding partner of alpha-d which involves contacting an alpha-d polypeptide with an alpha-d binding partner, one for which is immobilised and the other of the compound affects binding between the alpha-d polypeptide and determining if the compound affects binding between the alpha-d polypeptide and alpha-d binding partner, where the alpha-d polypeptide is alpha-d or its fragment comprising the cytoplasmic, transmembrane or extracellular domain of alpha-d. Compounds that modulate alpha-d binding could be used to treat diseases such as type-I diabetes, atherosclerosis, multiple sclerosis, asthma sporiasis, lung infimamation, acute respiratory distress syndrome and rheumatoid arthitis.
                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661 YDLALDSGRPHSRAVFNĖTKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRINF 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NFBALKTVONQLREKIFA; EGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 137 PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RIHFTFKEFONNPNPRSLİKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              317 NFEALKTIQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GVFLYTSKEKSTFINMTRYDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ONTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RLOVPVEAVNMSLGLSLAATTSPPOLLACGPTVHOTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                  .;
0
                                                                                                                                                                                                                                                                                                                                                                                                  Length 1153;
                                   Screening assay for modulators of integrin binding - using immobilised or labelled alpha-d polypeptide, useful for, e. treating type-I diabetes
                                                                                                                                                                                                                                                                                                                                                                                                                                  IndelB
                                                                                                                                                                                                                                                                                                                                                                                                Score 5839; DB 19;
Pred. No. 0;
8; Mismatches 5;
                                                                                                     English.
                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity 98.9%;
Matches 1124; Conservative
                                                                                                     Example 5; Fig 1A-D; 106pp;
                                                                                                                                                                                                                                                                                                                                                                     1153 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
```

g

ò 유 ò g ò g

õ

g ò

ò

8 8

엄 ò 8 ò 셤 ò g ò a

ò

```
in cellular adhesion. Integrins are made up of an alpha subunit and a beta subunit. One class of human integrins are restricted to expression in white blood cells and have a common beta2 subunit: the leukocyte common beta2 subunit: the leukocyte integrins. Leu-CAMS, leukointegrins or beta2 integrins. Beta2 integrins have an important role in immune and inflammatory responses. The present protein sequence was used in an alignment to identify a novel beta2 integrin alpha subunit: alpha (AAA60014 and AAB07159). The present sequence has approximately 60% identify to the protein sequence of alpha d. The Alpha d gene and protein may be useful in therapy for diseases linked to aberrant alpha d function e.g. Type I diabetes, atherosolerosis, multiple sclerosis, asthma, psoriasis, lung inflammation, acute respiratory distress syndrome remained arthritis and leukocyte adhesion deficiency (LAD). In addition, anti-alpha d monoclonal antibodies may be used in the inhibition of macrophage infiltration at the site of a central nervous system injury. The monoclonal antibodies can also be used to detect and diagnose Crohn's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721 SLVGTPLSAFGNLRPVLAËDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 780
                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HGTSGSGISPSHSQRIAG$KLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TDGEKFGDPLGYEDVI PELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NFEALKTVQNQLREKIFAI EGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ONTGMWESNANVKGTO1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HGTSGSGISPSHSQRIAG$KLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                        FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                             Score 5839; DB 21; Length 1153;
Pred. No. 0;
8; Mismatches 5; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                 99.3%;
98.9%;
                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 50.5
Matches 1124; Conservative
                                                                                                                                                                                                                                                                                                                                 1153 AA;
                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                          Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

```
RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                               FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                    PFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1096
 796
                                                                                                         900
                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to promoting locomotor recovery, inhibiting locomotor damage, limiting locomotor impairment, or limiting autonomic and sensory dysfunction following spinal cord injury by administering an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LAD; leukocyte adhesion deficiency; inflammatory response; diabetes; multiple acleroals, arthritis; graft atheroscleroals, neuroprotective; inflammatory bowel disease; ulcerative colitis; inflammatory bowel disease; ulcerative colitis; immune complex alveolitis; leukaemia; ICAM-R; VCAM-1; anti-inflammatory; infracellular cell adhesion molecule; vascular cell adhesion molecule; locomotor recovery; locomotor damage; locomotor impairment; autonomic dysfunction; sensory dysfunction; sensory dysfunction; spinal cord injury.
                                                                                                                                                                                                                                                                                                                                                                                                   KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                        KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPO 1153
SLVGTPLSAFGNLRPVLAEDAQRLFTALPPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                               SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRINKTFF
                                                                                                                                                                                                     QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                     GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                        GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                             SGALKSTSCS1NHP1FPENSEVTFN1TFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                  QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Use of an anti-alpha-d monoclonal antibodies for promoting locomotor recovery, inhibiting locomotor damage, limiting locomotor impairment, or limiting autonomic and sensory dysfunction following spinal cord
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Beta2 integrin; alphaD subunit; CD11c subunit; CD11b subunit;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5; Page 191-194; 270pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human Beta2 integrin alphaCD11b subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABG61469 standard; Protein; 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Van Der Vieren M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13-OCT-2000; 2000US-0688307.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-OCT-2001; 2001WO-US32059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-463260/49.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200230980-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gallatin WM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SODI (-SODI)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-APR-2002
                                                                                                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                                                                                                                                                     1081
                                                                                                                                                                                                                                                                                                                                                                                                                                         1097
   737
                                       781
                                                                         797
                                                                                                                                                                                    901
                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                            716
                                                                                                                                                                                                                                                                                                                                                                   1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             injury
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                         g
                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                 ď
                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                     δ
                                                                                                             δ
```

L.

```
This invention relates to a modified integrin-I or integrin I-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200218583-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ţ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        conformation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                15-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Springer
                                                                                                                                                                                                                                      1021
                                                                                                                                                                                                                                                             1037
                                                                                                                                                                                                                                                                                    1001
                                                                                                                                                                                                                                                                                                          1097
      721
                          737
                                                 781
                                                                       197
                                                                                              841
                                                                                                                     857
                                                                                                                                            901
                                                                                                                                                                 917
                                                                                                                                                                                        961
                                                                                                                                                                                                               716
                                                                                                                                                                                                                                                                                                                                                                                       AAU80252,
                                                                                                                                                                                                                                                                                                                                                       RESULT
                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                        ద
                     윱
                                           8
                                                                 ద
                                                                                       ઠે
                                                                                                               ద
                                                                                                                                           ò
                                                                                                                                                               셤
                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                      ઠે
anti-aipha d (Beta2 integrin alpha2 subunit) monoclonal antibody to a spinal cord injury victim. The method also involves the use of a ligand selected from ICAM*R or VCAM*N. (intracellular cell adhesion molecule, vascular cell adhesion molecule). The method is useful for promoting locomotor recovery, inhibiting locomotor impairment, or limiting autonomic and sensory dysfunction following spinal cord injury. Impaticular, the spinal cord injury comprises compression of the spinal cord. The antibodies are also useful for reducing inflammation at the site of a central nervous system injury. The specification also details the identification of Beta2 integrin alphaD cDNAs and proteins, for use in raising the antibodies. Beta2 integrins are implicated in diseases such as LAD (leukocyte adhesion deficiency, inflammatory response, diabetes, multiple sclerosis, arthitis, graft atherosclerosis, inflammatory bowel disease, crohn's disease, ulcerative disease, alveolitis and leukaemia. The present sequence is a Beta2 integrin alpha brotein sequence included for comparison with the Beta2 integrin alphaD protein
                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                  136
                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                196
                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                             256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9/9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          736
                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                    76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ONTGMMESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                      FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                            RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                        PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                        RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                    TDGEKFGDPLGYEDVI PELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NFEALKTVQNQLREKIFA LEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NFBALKTIQNQLREKIFAIBGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRGORARWOCDAVLYGEQGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              497 PRGQRARWQCDAVLYGEQGPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 677 .YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                      FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                   Length 1153;
                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                 Score 5839; DB 23;
Pred. No. 0;
8; Mismatches 5;
                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 98.9%;
Matches 1124; Conservative
                                                                                                                                                                                                                            1153 AA;
                                                                                                                                                                                                       seduences.
                                                                                                                                                                                                                                                                                                  -
                                                                                                                                                                                                                                                                                                                      11
                                                                                                                                                                                                                                                                                                                                                                                                                 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                  17
                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                               197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   යි දි
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
    ò
                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
```

```
1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                              840
                                                                                                                                                                                                                                                                                                  960
                                                                                                                                                                                                                                                                                                                                                 916
                                                                                                                                          856
                                                                                                                                                                                               900
                                                                                                                                                                                                                                              916
780
                                         196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     an
                                                                                                                                                                                                                                                                                                                                                                                                   RLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
                                                                                                                                                                                                                                                                                                                                                                                                                             SLYGTPLSAFGNERPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                           GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                           SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                     QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                               QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLP1SLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Modified integrin-I or integrin I-like domain polypeptide useful as a immunogen to produce antibodies specific to polypeptide, comprises a disulfide bond such that polypeptide is stabilized in a desired
SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLONORSORSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Integrin; antiinflammatory; imunosuppression; nephritis; dei inflammatory disease; autoimmune disorder; Crohn's disease; human immunodeficiency virus; HIV; myocardial infarction; Sjorgen's syndrome; rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human integrin 1 alpha-M subunit protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Page 109-112; 112pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Key Location/Qualifiers
Misc-difference 499..500
/note= "Encoded by GGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ä.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Protein; 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ΰ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          З
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-SEP-2000; 2000US-229700P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       31-AUG-2001; 2001WO-US27227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (BLOO-) CENT BLOOD RES INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Shimoaka
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-382964/41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAU80252 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; ABK50046
```

```
domain polypeptide comprising at least one disulfide bond so that the domain is stabilised in a desired conformation. The polypeptide of the invention may have antinifiammacory or immosuppressive activities. The polypeptides of the invention have an open conformation and activities. The polypeptides of the invention have an open conformation and accinitions in regard in I-domain; and for identifying a modulator of integrin activity, or of interaction of an integrin and a cognate ligand. The polypeptide of the invention, or antibodies (preferably anti-LFA-1 antibody) is useful for treating or preventing an integrin mediated disorder which is an inflammatory or autoimmune disorder in a subject and for inflammatory or autoimmune disorder in a subject and for inflammatory or autoimmune disorder in a subject and for inflammatoric in a syndrome, rheumatoid arthritis, dermatitis.

A therapeutic composition comprising the petide of the invention is useful for treating an integrin mediated disorder in a subject. The polypeptides and for active or; antigenic fragments are useful as reagents for diagnosis of integrin-mediated disorders. The present sequence represents the human integrin-mediated disorders. The present sequence represents the human integrin-mediated disorders. The present sequence the mutant polypeptides of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NFEALKTVQNQLREKIFA1EGTQTGSSSSFEHEMSQEGFSAA1TSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YDLALDSGRPHSRAVFNETRNSTRROTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           317 NFEALKTIQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FWLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RLQVPVEAVNMSLGLSLAA†TSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FNLDTENAMTFQENARGFGGSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                 Score 5839; DB 23; Length 1153;
Pred. No. 0;
8; Mismatches 5; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 98.9%;
Matches 1124; Conservative
                                                                                                                                                                                                                                                                                                                                                                               1153 AA;
                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
```

```
RINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                               1080
                                                                                                                                                                                                                                                                                        1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mac-1; integrin alpha subunit; variant integrin inserted domain protein; open conformation; integrin related inflammatory disorder; integrin related immunological disorder; rheumatoid arthritis; ischaemia; reperfusion; hypovolemic shock; infarction; cerebral shock; viral infection; cancer; gene therapy; vaccine;
                                                                                                                                                       960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention comprises structurally biased variant integrin inserted (1) domain proteins, wherein the alterations to the protein occur in at least
                       796
                                                  840
                                                                           856
                                                                                                    900
                                                                                                                             916
                                                                                                                                                                                 976
                                                                                                                                                                                                                                                                                                                 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                 1037 FFGIOEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGOGAFVRSQTET
                                                                                                                   SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTFF
                                                                                                                                                                      QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                      SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                       QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVPLVPV
                                                                                                                                                                                                                                                               FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New integrin I domain protein having alteration in at least 2 noncontiguous regions and exits in an open conformation, useful for treating, preventing or suppressing inflammatory or immunological disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TECHNOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1F; 90pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                           AAO14428 standard; protein; 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Integrin Mac-1 alpha subunit.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09-JUL-2001; 2001WO-US21805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07-JUL-2000; 2000US-216600P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (CALY ) CALIFORNIA INST OF (BLOO-) CENT BLOOD RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 bioactive agent screening
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-148167/19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200204521-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 1; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                              03-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Springer T;
                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                           961
                                                                                                                                                                                                                                                                                                                                                                                                                                    AA014428;
721
                        737
                                                  781
                                                                                                      841
                                                                                                                                857
                                                                                                                                                        901
                                                                                                                                                                                 917
                                                                                                                                                                                                                                                                                                                                                                                 RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                  δ
                                                                         g
                                                                                                   ò
                                                                                                                          셤
                                                                                                                                                       È
                                                                                                                                                                             셤
                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                  Š
```

```
two noncontinuous regions. Specifically the the variant integrin I domain proteins are structurally biased to exist in the open conformation, thereby altering the binding ability of the protein. The invention also comprises nucleic acids encoding the variant integrin I domain proteins. The integrin I domain proteins and nucleic acids are useful for treating, preventing or suppressing integrin related inflammatory and immunological disorders (e.g. rheumatoid arthritis). The variant integrin I domain proteins and nucleic acids can also be used for treating: ischaemia/reperfusion (e.g. hypovolemic shock); infarction; cerebral shock; viral infection; and cancer. The variant integrin I domain nucleic acids and proteins may be used in gene therapy, as vaccines and to screen for bloactive agents. The present amino acid sequence represents the Mac-1 alpha subunit of integrin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                     136
                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  196
                                                                                                                                                                                                                                                                                                                                                      16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                            FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                       RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                           RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEOLKKSKTLFSLMOYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TDGEKFGDPLGYEDVI PELDREGVI RYVLGFGDA FRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NFEALKTVONOLREKI FA LEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NFEALKTIQNOLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GVFLYTSKEKSTFINMTRÝDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ONTGMMESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGOIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  677 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GPREFNUTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                          FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                      PPEALRGCPQEDSDIAFLIDGSGS11PHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                           Length 1153;
                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                        99.3%; Score 5839; DB 23;
98.9%; Pred. No. 0;
ive 8: Mismatches 5:
                                                                                                                                                                                                                                                                                          5;
                                                                                                                                                                                                                                                                                          ; Mismatches
                                                                                                                                                                                                                                                                          Best Local Similaricy
Matches 1124, Conservative
                                                                                                                                                                                                                             1153 AA;
                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                          -
                                                                                                                                                                                                                                                                                                                                                      17
                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                   77
                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>ک</u> ۾
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
    $$$$$$$$$$$$$$$$$$$$
                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

Sign 1

```
1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        976
                                                                                                                                                               616
                                                                                                                                                                                                                                                                                                                                         196
                                                                                                                                                                                                                                                                                                                                                                                                                                                              916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            960
                   480
                                             496
                                                                           540
                                                                                                      556
                                                                                                                                   900
                                                                                                                                                                                            660
                                                                                                                                                                                                                         676
                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                   736
                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                     856
                                                                                                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                              YDIALDSGRPHSRAVFNETKNSTRROTQVLGLTQTCETLKLQLPNC1EDPVSP1VLRLNF
                                                                                                                                                                                                                                                                                                                                737 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                       797 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                   SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QLELPVXXAVYMVVTSHGVSTXYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          917 QLELPVKXAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
                                   437 QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                          PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                  HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                            PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                      677 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNC1EDPVSP1VLRLNF
                                                                                                                                                                                                                                                                                                             SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                  SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                           PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                  QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                        GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            p150,95 leucocyte adhesion receptor alpha-subunit; hairy cell leukaemia; rhinovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  p150.95 alpha subunit encoded by clone lambdaX47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              89.91
/label-glycosylation site
385.387
/label-glycosylation site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61..63
/label=glycosylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAR07120
ID AAR07120 standard; protein; 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (updated)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25-MAR-2003
05-FEB-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic
                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                              857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1097
                  421
                                                                           481
                                                                                                     497
                                                                                                                                  541
                                                                                                                                                               557
                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAR07120;
                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
                                         셤
                                                                                               ద
                                                                                                                                                            g
                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                ઠે
                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mac-1 alpha subunit is involved in the response to inflammation, i.e. recognition of and migration to sites of inflammation. It also attaches to cellular substrates as part of this function making it useful in visualising endothelial tissue.

Mac-1 is a member of the Intégrin Gene superfamily.

(Updated on 25-MAR-2003 to correct PR field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RIHFTFKBFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILVVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TDGEKFGDPLGYEDVI PELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                   New pure Mac-1 alpha sub-unit and corresp. DNA useful for treating inflammation and viral infections, and in diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 11; Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
             /*label= putative N-glycosylation site
1051..1053
(*label= putative N-glycosylation site
1076..1078
/*label= putative N-glycosylation site
                                                                                          1..16
/*label= signal peptide
1106..1134
/*label= putative transmembrane region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 5829; DB
Pred. No. 0;
8; Mismatches
                                                                                                                                                                                                                                                                                                (DAND ) DANA FARBER CANCER INST INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure, Page ?; ?pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 99.1%;
Best Local Similarity 98.8%;
Matches 1123; Conservative
                                                                                                                                                                                                                         89EP-0115159
                                                                                                                                                                                                                                                   89US-0235353.
                                                                                                                                                                                                                                                                                                                           Corbi A;
                                                                                                                                                                                                                                                                                                                                                        WPI; 1990-125938/17.
N-PSDB; AAQ04043.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1153 AA;
                           Modified-site
Modified-site
                                                          Modified-site
                                                                                                                                                                                                                                                                                                                             Springer TA,
                                                                                                                                                                                                                                                   23-AUG+1988;
09-MAR-1989;
                                                                                                                                                                                                                        17-AUG-1989;
                                                                                                                                                                                           25-APR-1990
                                                                                                                                                               EP364690-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                       region
                                                                                                                    region
```

g

ઠે

g

8 6

ò

상 임 6 8 6

a

ठे

300

```
VRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCORIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVULTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                           677 LDLALDPGRLSPRATFQETKNRSLSRVRVLGLKAHCENFNLLLPSCVEDSVTPITLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SNLELNAEVMYWNDGEDSYGTTITFSHPAGLSYRYVAEGQKQQQLRSLHLTCDSA--PVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
              301 NFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                  QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                       PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                       PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                        TDGEKFGDPLGYEDVI PELDREGVI RYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TKVEPPEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Protein; 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                           557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1095
                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW65091
                                                                                      258
                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                               498
                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              901
181
                                                        241
                                                                                                                                                                                                          378
                                                                                                                                                                                                                                                                     438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAW65091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SAXXEX
                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                            셤
                                                                                                                ò
                                                                                                                                        셤
                                                                                                                                                                         ò
                                                                                                                                                                                                       셤
                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                ò
                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LPVSRQECPRQEQDIVFUIDGSGSISSRNFAIWMNFVRAVISQFQRPSTQFSLMQFSNKF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          80 GLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FNLDTBELTAFRVDSAGRGDSVVQYANSWVVVGAPQKITAANQTGGLYQCGYSTGACEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHOTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Clone lambda X47 was isolated from a cDNA library constructed from total RNA extracted from phorbol myristate acetate stimulated HL-60 myelomonocytic cells. The library was screened with oligomorclecide probes based on tryptic peptide fragments of p150.95. The sequence can be attached to appropriate control elements and expressed in prokaryotic and eukaryotic cells. The protein can be used to treat and inhibits cell-virus attachment. It can also be used as an anti-inflammatory agent.

See also AAQ06063-4, AAQ06068, AAR07121-8 and AAR07152-6. (Updated on 25-MAR-2003 to correct PR field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Treatment of viral esp. rhino-viral infection - by admin. of alpha sub-unit of p150.95 cell surface adhesion receptor, opt. together with a beta chain of CD-18 [family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Match 58.5%; Score 3437; DB 11; Local Similarity 60.3%; Pred. No. 2.2e-275; les 681; Conservative 143; Mismatches 299;
            /label=glycosylation site 697..699 /label=glycosylation site 713..737 /label=glycosylation site
                                                                                      899..901
/label=glycosylation s
904..906
/label=glycosylation s
                                                                                                                                                                                                                                         1..19
/label=signal peptide
                                                                                                                                                                          1050..1052
/label=glycosylation
1108..1133
                                                                                                                                                 939..941
/label=glycosylation
                                                                                                                                                                                                               1108..1133 |
/label=transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                         INST INC
                                                                                                                                                                                                                                                                         20..44
/label=N-terminus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Fig 3; 59pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                           89US-0305458
                                                                                                                                                                                                                                                                                                                                                                               90WO-US01257
                                                                                                                                                                                                                                                                                                                                                                                                                                       (DAND ) DANA FARBER CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1990-304985/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Corbi AA, Springer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1163 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-PSDB; AAQ06068.
Modified-site
                            Modified-site
                                                        Modified-site
                                                                                    Modified-site
                                                                                                                  Modified-site
                                                                                                                                                Modified-site
                                                                                                                                                                              Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                           02-FEB-1989;
                                                                                                                                                                                                                                                                                                                                                                               09-MAR-1990;
                                                                                                                                                                                                                                                                                                                   WO9010646-A
                                                                                                                                                                                                                                                                                                                                                 20-SEP-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                           Domain
                                                                                                                                                                                                                                         Region
                                                                                                                                                                                                                                                                       Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Loca
Matches
```

QQ

ò

ò 셤

g

ò

900 914 959 974

854

900 616 9 919 720 736 780 196 840

556

540

480 497

Tue

1

```
1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     914
                                                                                                                                                                                                                                                                                                                                                                                                                           736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      974
                                                                                                                                                  497
                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                          616
                                                                                                                                                                                                                                                                                                                            999
                                                                                                                                                                                                                                                                                                                                                            919
                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               196
                   377
                                                   420
                                                                                    437
                                                                                                                      480
                                                                                                                                                                                                                       556
                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; macrophage infiltration inhibition; alpha d integrin; leukocyte integrin; Leu-CAM; leukointegrin; immune response; linflammation; leukocyte adhesion deficiency; LAD; Type I diabetes; atherosclerosis; multiple sclerosis; aethma; psoriasis; beta2 integrin; lung inflammation; acute respiratory distress syndrome; Crohn's disease; rheumatoid arthritis; central nervous system injury; CDllc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEGQKQGQLRSLHLTC--CSAPVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VELNOSAVWMDVEVSHPQNPSLRCSSEKIAPPASDFLAHIQKNPVLDCSIAGCLRFRCDV
HGVLGPSISPSHSQRIAGSQLSSRLQYFGQALSGGQDLTQDGLVDLAVGARGQVLLLRTR
                                                                                                                                                                                                                                                                                                                                               SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TLVGKPLLAFRNLRPMLAALAQRYFTASLPFEKNCGADHICQDNLGISFSFPGLKSLLVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OLELPVKYAVYIVVSSHEOFTKYLNFSESEEKESHVAMHRYOVNNLGORDLPVSINFWVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PPFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                     GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                       PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                         HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                            PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                             YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                    GAPLYPPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVQSLVLGAPRYQHIGKAVIFI
                                                                                                                      QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Protein; 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human CD11c protein sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAB07361;
                   318
                                                                                    378
                                                                                                                                                        438
                                                                                                                                                                                                                       498
                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                          557
                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                            617
                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                               677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAB07361
                                                     361
                                                                                                                      421
                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                 셤
                                                                                                                                                용
                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                     용
                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                 ે
                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         용
                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This sequence represents a human beta-integrin CD11c subunit which is used to describe a method for identifying compounds that modulate the interaction of the beta-integrin alpha-d subunit with a binding partner of alpha-d which involves contacting an alpha-d polypeptide with an alpha-d binding partner, one of which is immobilised and the other of which is labelled, in the presence of a test compound, and determining if the compound affects binding between the alpha-d polypeptide and alpha-d binding partner, where the alpha-d polypeptide is alpha-d or its fragment comprising the cytoplasmic, transmembrane or extracellular domain of alpha-d. Compounds that modulate alpha-d binding could be used to treat diseases such as type-I diabetes, atherosclerosis, multiple sclerosis, syndrome and rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301 NFEALKTVQNQLREKIFAJEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                79
                                                   type-i diabetes; atherosclerosis; multiple sclerosis; asthma; lung inflammation; acute respiratory distress syndrome; CD11c subunit; rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TDGKKEGDSLDYKDVI PMADAAGIIRYAIGVGLAFQNRNSWKELNDIASKPSQEHIFKVE
                                   alpha-d subunit; human; modulator; treatment; psoriasis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GLQVPPEAVNMSLGLSLASTISPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LPVSROECPROEODIVFLIDGSGSISSRNFATMMFVRAVISOFORPSTOFSLMOFSNKF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RIHFTFKEFONNPNPRSLİKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 using
for, e.g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           tch 58.2%; Score 3423; DB 19; Length al Similarity 60.2%; Pred. No. 3.2e-274; 680; Conservative 149; Mismatches 294; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                               Screening assay for modulators of integrin binding - usir
immobilised or labelled alpha-d polypeptide, useful for,
     protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    English.
     subunit
                                                                                                                                                                                                                                                                                                                                                                             Ξ
                                                                                                                                                                                                                                                       95US-0485618.
93US-0173497.
94US-0286889.
94US-0362652.
                                                                                                                                                                                                                                                                                                                                                                             VIEREN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 5; Fig 1A-D; 106pp;
                                                                                                                                                                                                                         95US-0485618
   CD11c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                treating type-I diabetes
                                                                                                                                                                                                                                                                                                                                                                             Van DER
                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1998-206565/18.
   Beta-integrin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1163 AA;
                                                                                                                                                                                                                                                                                                                                              CORP.
                                     Beta-integrin
                                                                                                                                                                                                                                                                         23-DEC-1993;
05-AUG-1994;
21-DEC-1994;
                                                                                                                                                                                                                                                                                                                                            (ICOS-) ICOS
                                                                                                                        sapiens
                                                                                                                                                                                                                                                                                                                                                                             Gallatin WM,
                                                                                                                                                                                                                         17-JUN-1995;
                                                                                                                                                        JS5728533-A
                                                                                                                                                                                                                                                           07-JUN-1995
                                                                                                                                                                                       17-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
   Human
                                                                                                                        Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
```

6 6 6 6 6 6 6 6

497

540 556 600 616

437

720 736 780 196 840

919

099

900 914 959 974

854

```
VRINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VELNOEAVWMDVEVSHPONPSLRCSSEKIAPPASDFLAHIOKNPVLDCSIAGCLRFRCDV 1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LAD; leukocyte adhesion deficiency; inflammatory response; diabetes; multiple sclerosis; arthritis; graft atherosclerosis; neuroprotective; inflammatory bowel disease; Crohn's disease; ulcerative colitis; immune complex alveolitis; leukaemia; ICAM-R; VGM-I; anti-inflammatory; intracellular cell adhesion molecule; vascular cell adhesion molecule; locomotor recovery; locomotor damage; locomotor impairment; autonomic dysfunction; sensory dysfunction; spinal cord injury.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                        GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                            661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                     601 PVLRVKAIMEFNPREVARNVFECNDOVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                              PRGORARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                       QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Beta2 integrin; alphaD subunit; CD11c subunit; CD11b subunit;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human Beta2 integrin alphaCD11c subunit.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABG61470 standard; Protein; 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       27-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                           617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABG61470;
                                                                                                                                                                                                                                                                                                                                                                                    677
                                                                                                                                                                                                                                                                                                                                                                                                                                                        737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              960
                                                                                             438
                                                                                                                                481
                        378
                                                           421
                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                    윤
                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                         ઠ
                                                                                             셤
                                                                                                                                                              d
                                                                                                                                                                                                   ò
                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                 Integrins are a class of membrane-associated molecules that participate in cellular adhesion. Integrins are made up of an alpha subunit and a beta subunit. One class of human integrins are restricted to expression in white blood cells and have a common beta2 subunit: the leukocyte sintegrins in the subunit in the leukocyte integrins. Leu-CAMS, leukointegrins or beta2 integrins. Beta2 integrins can important role in immune and inflammatory responses. The present protein sequence is the human integrin alpha subunit. Oils. This approximately 66% identity to the protein sequence has sequence and protein may be useful in therapy for diseases linked to aberrant alpha d function e.g. Type I diabetes, atherosclerosis, multiple sclerosis, asthma, psoriasis, lung inflammation, acute respiratory distress syndrome, rheumatoid arthritis and leukocyte adhesion deficiency (LAD). In addition, anti-alpha d monoclonal antibodies in site of a central nervous system injury. The monoclonal antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NFEALKTVQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAALTSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DFDALKDIQNQLKEKIFALEGTETISSSSFELEMAQEGFSAVFTPDGPVLGAVGSFTWSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FNLDTEELTAFRVDSAGFGDSVVQYANSWVVVGAPQKIIAANQIGGLYQCGYSTGACEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LPVSRQECPRQEQDIVFLIDGSGSISSRNFATMMNFVRAVISQFQRPSTQFSLMQFSNKF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                               Use of novel anti-alpha integrin d monoclonal antibodies to inhibit macrophage infiltration and reduce inflammation at central nervous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 can also be used to detect and diagnose Crohn's disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 3423; DB 21;
Pred. No. 3.2e-274;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         149; Mismatches 294;
                                                                                                                                                                                                                                                                                                                                                                                       Example 5; Fig 1; 270pp; English.
                                                                                                                                                                                                                                            Σ
                                                                                                                                                                                                                                              Van Der Vieren
                                                                                                                                                    98US-0193043
99US-0350259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       58.2%
                                                                                                                   99WO-US27139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              50.2.
Best Local Similarity 60.29
Marches 680; Conservative
                                                                                                                                                                                                                                                                                                                                                    system injury sites
                                                                                                                                                                                                                                                                             WPI; 2000-387751/33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1163 AA;
                                                                                                                                                                                                          CORP.
                                            WO200029446-A1
                                                                                                                                                                                                          (ICOS-) ICOS
             Homo sapiens
                                                                                                                                                                       08-JUL-1999;
                                                                                                                   16-NOV-1999;
                                                                                                                                                                                                                                              Gallatin MW,
                                                                                                                                                      16-NOV-1998;
                                                                               25-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
```

g

9 ò

ઠે

g ò g ò QQ ठे g ò

ò

```
1035 PSFSVQEELDFTLKGNLSFGWVRQILQKKVSVVSVAEIIFDTSVYSQLPGQEAFMRAQTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              960 VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     975 VELNOBAVWMDVEVSHPQNPSLRCSSEKIAPPASDFLAHIOKNPVLDCSIAGCLRFRCDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                                                     GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEGQKQQQLRSLHLTC--CSAPVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SQGTWSTSCRINHLIFRGGAQITFLATFDVSPKAVGLDRLLLIANVSSENNIPRTSKTIF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                             GAFLYPPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVQSLVLGAPRYQHIGKAVIFI
                                                                                                                         OVSROWRMKAEVIGTOIGSYFGASLCSVDVDTDGSTDLVLIGAPHYYEQTRGGOVSVCPL
                                                                                                                                                                   PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                        PRGWR-RWWCDAVLYGEOGHPWGRFGAALTVLGDVNGDKLTDVVIGAPGEEERRGAVYLF
                                                                                                                                                                                                                                                  HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Prostate cancer; gene expression; differential regulation; molecular marker; drug target; cancer detection; cancer diagnosis; cancer staging; cancer assessing; cancer monitoring.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Protein differentially regulated in prostate cancer #9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABU07406 standard; Protein; 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200281638-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-0CT-2002
                                                                                                                                                                                                                                                                                                                                                                        617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABU07406;
    361
                                                                                    421
                                                                                                                           438
                                                                                                                                                                   481
                                                                                                                                                                                                         498
                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                        557
                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 11
ABU07406
                                                                                ò
                                                                                                                    셤
                                                                                                                                                                   ઠે
                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                욥
                                                                                                                                                                                                                                                                                                                                                                                                                 S.. 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to promoting locomotor recovery, inhibiting locomotor damage, limiting locomotor impairment, or limiting autonomic and sensory dysfunction following spinal cord injury by administering an anti-alpha d (Beta2 integrin, alpha2 subunit) monoclonal antibody to a nati-alpha d (Beta2 integrin, The method also involves the use of a ligand selected from ICMM-R or VCMM-1 (intracellular cell adhesion molecule), vascular cell adhesion molecule). The method is useful for promoting locomotor recovery, inhibiting locomotor damage, limiting locomotor impairment, or limiting autonomic and sensory dysfunction following spinal cord injury. In particular, the spinal cord injury. The spinal cord injury. The spinal cord injury comprises compression of the spinal cord. The antibodies are also useful for reducing inflammation at the site of a central nervous system injury. The specification also details the identification of Beta2 integrin also details the identification of Beta2 integrin deficiency, inflammatory response, diabetes, multiple sclerosis, crohn's disease, ulcerative colitis, immune complex alveolitis and leukaemia. The present sequence is a Beta2 integrin alpha subunit sequence included for comparison with the Beta2 integrin alpha protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 RIQVPVBAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RIHFTFKEFONNPNPRSLÍKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FPEALRGCPQEDSDIAFLIDGSGS11PHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHFTFEEFRATSNPLSLEASVHQLQGFTYTATAIQNVVHRLFHASYGARRDAIKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                   Use of an anti-alpha-d monochonal antibodies for promoting locomotor recovery, inhibiting locomotor damage, limiting locomotor impairment, or limiting autonomic and sensory dysfunction following spinal cord injury -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  58.2%; Score 3423; DB 23; Length 1163; 60.2%; Pred. No. 3.2e-274;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative 149; Mismatches 294;
                                                                                                                                                                                                                                                                                                                                                                                         Example 5; Page 194-198; 270pp; English.
                                                                                                                                                                                                         Van Der Vieren
                                                                                  15-OCT-2001; 2001WO-US32059
                                                                                                                           13-OCT-2000; 2000US-0688307
                                                                                                                                                                                                                                               WPI; 2002-463260/49.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1163 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                   CORP
WO200230980-A2
                                                                                                                                                                 (ICOS-) ICOS
                                                                                                                                                                                                       Gallatin WM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        680;
                                          18-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Loca
Matches
```

8 ò 임

ò

g

ò g ò

ò 원 ò

1019 1034 1079

900

377

420 437 480 497 556 900 616 9 919 720 736 780 196 840 854 900 914 959 974

540

.

```
VRINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SNLELNAEVMVMNDGEDSYGTTITFSHPAGLSYRYVAEGQKQGQLRSLHLTCDSAPVG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                  HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEXNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
QTHLTFEEFRRTSNPLSLLASVHQLQGFTYTATAIQNVVHRLFHASYGARRDATKILIVI
                                                                                                                                                           GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                             QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                  PRGORARWOCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                           TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSROELNTVASKPPRDHVFQAN
                                                                                                                                  NFEALKTVONOLREKI FA I EGTQTGSSSSFEHEMSQEGFSAA I TSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1080 TKVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKDMMSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAR78166 standard; Protein; 1161 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human beta-2 integrin alpha-d.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-DEC-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAR78166;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                         258
                                                                                                                                                                           318
                                                                                                                                                                                                                                                                                                                                                         438
                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                  301
                                                                                                                                                                                                                                                                  378
                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAR78166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ********
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                  ò
                                                                                                                                                                    g
                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                             8
                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                           The invention describes genes (I) which are differentially regulated in prostate cancer. (I) Is useful for diagnosing a prostate cancer in a constaining prostate tissue, which involves determining the number of target genes which are differentially regulated in the sample, where the number is indicative of the probability that the sample comprises the number is indicative of the probability that the sample comprises concer. (I) Is useful for assessing a therapeutic or preventive intervention in a subject having a prostate cancer. Which involves concerned the expression levels in a sample comprising prostate tissue of target genes which are differentially regulated in prostate cancer. Or terretably, the expression levels of at least 10 genes are determined. (I) is also useful for identifying a prolypeptide differentially regulated in prostate cancer. Cells, which involves contacting a polypeptide differentially regulated in prostate cancer cells with a test agent under conditions effective for the test agent to modulate the polypeptide, and determining whether the test agent modulates the biological activity of the useful as molecular markers, as drug targets, and for detecting, prognosticating, prognosticating, conditions especially relating prostate cancer. (I) is useful for assessing cancer. (I) and its expression products are used in the diagnostic test to assay for presence of cancer. Ce of cancer, its stage of development, the nature of genetic defect, etc. The polypeptide encoded by (I) can be used as target for theremy or drug discovery. (I) can also be used as tenget for the trapper or expressing the polypeptide and thus conserving not remarkable to the polypeptide and the diagnostic rest to east agent to a serget for the trappet or expressing the polypeptide and or determined by the polypeptide or dedecting or every as a serget for the polypeptide and defect or determined by the polypeptide or dedecting or the polypeptide encoded by (I) can be used as target for the polypeptide defect. The polyperide o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       identification of specific genes, and groups of genes, expressed in pathways physiologically relevant to prostate cancer permits the definition of functional and disease pathways and the delineation of trargets in these pathways which are useful in diagnostic, therapeutic, and clinical applications. This is the amino acid sequence of a protein diferentially regulated in prostate cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                Novel genes which are differentially regulated in prostate cancer, useful for diagnosing prostate cancer in prostate tissue sample and assessing therapeutic or preyentive intervention in prostate cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tch 58.2%; Score 3421; DB 24; al Similarity 60.1%; Pred. No. 4.7e-274; 679; Conservative 141; Mismatches 303;
                                                                                                                                                                                                                                                                                                                                                             English
                                                                                                                                                                                                                                                                                                                                                             Claim 1; Page 225-228; 416pp;
                                                                                                                    (ORIG-) ORIGENE TECHNOLOGIES
      08-APR-2002; 2002WO-US10824
                                                  06-APR-2001; 2001US-281731P.
                                                                                                                                                                                                         WPI; 2003-058520/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1163 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                             Jay G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S.
Matches 679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                      patients
                                                                                                                                                             Sun Z,
```

4 4 5

1094

a

ò

셤 ò ద ठ

ò

420 435 480 495 540 540 600 615

```
912 OLELPVKYAVYTMISRQEESTKYFNFATSDEKKMKEAEHRYRVNNLSORDLAISINFWVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SSLELNVIVTVWNAGEDSYGTVVSLYYPAGLSHRRVSGAQKQPHQSALRLACETV-PTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQ1QSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                       YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GPREFNVTVTVRNDGEDSYRTQVTFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQCAFVRSQTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TDGEKFGDPLGYEDVI PELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                         316 NFAALGSIQKQLQEKIYAVEGTQSRASSSFQHEMSQEGFSTALTMDGLFLGAVGSFSWSG
                                                                                                                                                         GAFLYPPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVONLVLGAPRYQHTGKAVIFT
                                                                                                                                                                                                                     496 PRGQRVQWQCDAVLRGEQGHPWGRFGAALTVLGDVNEDKLIDVAIGAPGEQENRGAVYLF
                                                                                                                                                                                                                                                                                                                                  HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                     GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                     QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                    PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDXLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SCALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Beta 2 integrin alpha d subunit, human, cell migration, cell adhesion, phagocytosis, diabetes, atherosclerosis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           integrin alpha d subunit.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           beta 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAW23049
                                                                                                                                                                                                                                     436
                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                794
                                                                       301
                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13
                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZXXXXXXXXXXXXXX
                                                                   ઢ
                                                                                                셤
                                                                                                                                     ò
                                                                                                                                                                a
                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                            윱
                                                                                                                                                                                                                                                                                                                                                                                               ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FNLDVEEPTIFQEDAGGFGGSVVQFGGSRLVVGAPLEVVAANQTGRLYDCAAATGMCQPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            probe based on a partial cDNA clone (given in AAQ91727) of canine lpha-TW1 was used to screen a human spleen cDNA library to identify lone! 19A2 encoding the beta-1 integrin alpha-subunit, alpha-d. he cDNA was manipulated to allow expression of recombinant alpha-d ubunit in COS and CHO cells.
      antiinflammatory; arteriosclerosis;
                                                                                                                                                 common to CH11a, b,c and may be a site for interaction with ICAM family proteins"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alpha'sub-unit polypeptide of human beta 2 integrin - used to identify potential antiinflammatory agents, for the treatment of graft arteriosclerosis, inflammatory bowel disease, asthma, etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               œ
•
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 57.6%; Score 3388; DB 16; Length 1161; Best Local Similarity 58.9%; Pred. No. 2.6e-271; Matches 665; Conservative 168; Mismatches 288; Indels 8;
                                                                                                                                                                                                                     "putative cation binding site"
                                                                                                                                                                                                                                                                                 "putative cation binding
                                                                                                                                                                                                                                                   cation binding
                                                                                                                      /note= "extracellular domain"
150..352
                                                                                                                                                                                                                                                                                                                  /note= "transmembrane region"
1129..1161
                                                                                                                                                                                                                                                                                                                                                     /note≈ "cytoplasmic domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 English.
                                                                                       Location/Qualifiers
      subunit; ar
18e; asthma
                                                                                                                                                                                                                                                     "putative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ξ
                                                                                                                                                    /note= "this
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Van Der Vieren
Beta-2 integrin alpha-d subuinflammatory bowel disease;
                                                                                                                                                                                                                                                                                   /note= "put.
1109..1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                  94WO-US14832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94US-0286889
93US-0173497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 7; Page 82-87; 172pp;
                                                                                                                                                                                                                                  518..527
/note= "pi
592..600
                                                                                                                                                                                                     .474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1995-240603/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1161 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1995-240603/
N-PSDB; AA091712.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (ICOS-) ICOS
                                                       Homo sapiens
                                                                                                                                                                                                     Binding-site
                                                                                                                                                                                                                                    Binding-site
                                                                                                                                                                                                                                                                  Binding-site
                                                                                                                                                                                                                                                                                                                                                                                    WO9517412-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-DEC-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-AUG-1994;
23-DEC-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gallatin WM,
                                                                                                                                                                                                                                                                                                                                                                                                                  29-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                       Domain
                                                                                                                                       Region
                                                                                                                                                                                                                                                                                                    Region
                                                                                                                                                                                                                                                                                                                                    Domain
                                                                                       Key
```

99

673

720

733

780 793 840 852 900 911 959 1019 1029 1079 1089

g

6 6 6 6

255

360 375 420 435 480 495 540

555 900 615 999 720

733

673

780

840

852

793

900

911

959

971

Ŀ

```
GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVOSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                    HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                   PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   941 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QLELPVKYAVYMVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLABLRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PFFGIOEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSQTE
                                                   TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                     QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                   781 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
NFEALKTVONOLREKI FAI EGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 į
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAW72825 standard; Protein; 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human alpha-d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19-JAN-1999
                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1020
                                                                                                                                                                                                                   376
                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                  436
                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                   496
                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                   556
                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    853
                                                                                                                    301
                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW72825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAW72825
ID AAW7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       XXXXXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                              g
                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                             용
                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                            윰.
                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                   ò
                                                                                용
                                                                                                                                                                                  ઠે
                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ý,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This polypeptide comprises a novel human beta 2 integrin subunit, designated alpha d. Its sequence was deduced from a cDNA clone (see AAT79220) isolated from a spleen cDNA library. Alpha d is involved in cell migration | phagocytosis and cell-cell interaction. Recombinant alpha d polypeptides can be expressed in transformed c host cells for use in assays for identifying antibodies or other compounds that modulate alpha d activity or which modulate the interaction between alpha d and a ligand, for treating or preventing diseases in which macrophages are implicated. Treatment is applicable to disease states in which alpha d binding, or localised accumulation of cells which express alpha d, is implicated such as such as type I diabetes, atherosclerosis, multiple sclerosis, asthma, psoriasis, lung inflammation, acute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FNLDVEEPTIFQEDAGGFGQSVVQFGGSRLVVGAPLEVVAANQTGRLYDCAAATGMCQPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          77 PLHIRPEAVNMSLGLTLAASTNGSRLLACGPTLHRVCGENSYSKGSCLLLGSRW-EIIQT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                    /note= "homologous to the human CD11c transmembrane
                                                                                                                                                                                                                 /label= Cytoplasmic_domain
150..352
/note= "region homologous to the I (insertion)
domain common to CD11a, CD11b and CD11c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .,
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hybridoma 199M and antibody secreted by it - specific for new beta2 integrin subunit, useful to detect subunit in cells and
     multiple sclerosis; asthma; psoriasis; lung inflammation; acute respiratory distress syndrome; rheumatoid arthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IndelB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       respiratory distress syndrome and rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tch 57.6%; Score 3388; DB 18; al Similarity 58.9%; Pred. No. 2.6e-271; 665; Conservative 168; Mismatches 288;
                                                                                                             /label= Extracellular_domain
1109..1128 |
/label= Trangmembrane_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 5; Page 116-120; 222pp; English
                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ξ
                                                                                                                                                                                     region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Van Der Vieren
                                                                                                                                                                                                                                                                                                                                                                                                     96US-0605672
                                                                                                                                                                                                                                                                                                                                                                    97WO-US02713
                                                                                                                                                                                                     1129..1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        modulate its activity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1997-435154/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1161 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                      CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; AAT79220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Jallatin WM,
                                                                                                                                                                                                                                                                                                                                                                   24-FEB-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                      (ICOS+) ICOS
                                                                                                                                                                                                                                                                                                                                                                                                     22-FEB-1996;
                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                   WO9731099-A1
                                                                                                                                                                                                                                                                                                                                    28-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local 3
                                                                                    Key
Domain
                                                                                                                                     Domain
                                                                                                                                                                                                     Domain
                                                                                                                                                                                                                                    Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loci
Matches
```

1019 1029 1079 1089

> d ઠ g ò 셤 ò

ò

5555 600 615 660 673 720 733 780 780 990 911

495

1

```
Beta-integrin alpha-d subunit; human; modulator; treatment; psoriasis; type-I diabetes; atherosclerosis; multiple sclerosis; asthma; lung inflammation; acute respiratory distress syndrome; rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 912 QLELPVKYAVYTMISRQEESTKYFNFATSDEKRMKEAEHRYRVNLSQRDLAISINFWVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                         PVLRVKA IMEFNPREVARNVFECNDOVVKGKEAGEVRVCLHVOKSTRDRLREGOIOSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901 QLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PFFGIQEEFNATLKGNLSFDWY1KTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                    HGASESGISPSHSQRIASSQLSPRLQYFGQALSGGQDLTQDGLMDLAVGARGQVLLRSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SLVGTPLSAFGNLRPVLAEDAQRLFTALPPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                  PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                  HGTSGSG1SPSHSQR1AGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                    QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Beta-integrin alpha-d subunit protein isolated from clone 19A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKROYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              standard; Protein; 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              . 096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1090
                                                                                                                                                                         436
                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAW65089
                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Key
Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW65089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SE
                                               용
                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q
                                                                                                                 ઠે
                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence represents human alpha d. The present invention describes: (1) an antibody that specifically binds alpha d, which is a beta 2 integrin alpha-subunit polypeptide; (2) a monoclonal antibody as in (1); (3) an anti-idiotype antibody specific for the monoclonal antibody of (2); (4) a hybridoma cell line producing the monoclonal antibody of (2); antibodies specific for alpha d can be used in immunohistochemical analysis to localise alpha d to subcellular compartments or individual cells within tissues. Substances that modulate alpha d binding (which may include antibodies) can be used to treat diabetes, atheroselerosis, multiple sclerosis, asthma, psoriasis, lung inflammation, acute respiratory distress syndrome or arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TDGEKFGDPLGYEDVI PELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FNLDVEEPTIFOEDAGGFGOSVVOFGGSRLVVGAPLEVVAANQTGRLYDCAAATGMCQPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NFEALKTVONOLREKI FA JEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
Alpha-d; beta-2 integrin alpha subunit; extracellular alpha-d; immunoglobulin; fusion protein; binding molecule; antibody; immunohistochemical analysis/ diabetes; atherosclerosis; asthma; multiple sclerosis; psoriasis; lung inflammation; arthritis; acute respiratory distress syndrome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Antibodies specific for beta-2 integrin alpha-subunit d - useful immunohistochemical analysis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    57.6%; Score 3388; DB 19;
58.9%; Pred. No. 2.6e-271;
tive 168; Mismatches 288;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 5; Column 61-66; 106pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 58.9%; | Prec
Marches 665; Conservative 168;
                                                                                                                                                                                                                                                                                                                                                                                               95US-0482293.
93US-0173497.
94US-0286889.
94US-0362652.
                                                                                                                                                                                                                                                                                                                                                95US-0482293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Van Der
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1998-609318/51.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1161 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; AAV67281.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (ICOS-) ICOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sallatin WM,
                                                                                                                                                                         sapiens
                                                                                                                                                                                                                                                                                                                                                07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                   23-DEC-1993;
05-AUG-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-DEC-1994;
                                                                                                                                                                                                                               JS5831029-A.
                                                                                                                                                                                                                                                                                                                                                                                                     07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                         Homo
```

1019

1079

9 9 9 9

g

ઠે

g

ò

```
ë
                                                                                                                                                                                                                                                                                                                                                                                                                                                 This sequence represents a hovel human beta-integrin alpha-d subunit. This sequence is used in a method for identifying compounds that modulate the interaction of alpha-d with a binding partner of alpha-d which involves contacting an alpha-d polypeptide with an alpha-d binding partner, one of which is immobilised and the other of which is lambolised and the other of which is lambolised and the other of which is lambolised in the presence of a test compound, and determining if the compound affects binding between the alpha-d polypeptide is alpha-d binding partner, where the alpha-d polypeptide is alpha-d or its fragment comprising the cytoplasmic, transmembrane or extracellular domain of alpha-d. Compounds that modulate alpha-d binding could be used to treat diseases such as type-I diabetes, atherosclerosis, multiple sclerosis, syndrome and rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16
                                                                           CD11 subunits"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FNLDVEEPTIFQEDAGGFGQSVVQFGGSRLVVGAPLEVVAANQTGRLYDCAAATGMCQPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FPEALRGCPQEDSDIAFUIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILIDIENAMTFOENARGFGOSVVQLQGSRVVVGAPOEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1161;
                                                                                                                                                                                                                                                                                                                                                                      Screening assay for modulators of integrin binding - using immobilised or labelled alpha-d polypeptide, useful for, e.g. treating type-I diabetes
                                                                           "homologous to insertion domain of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                        note= "Beta-integrin alpha-D subunit"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 57.6%; Score 3388; DB 19; Best Local Similarity 58.9%; Pred. No. 2.6e-271; Matches 665; Conservative 168; Mismatches 288;
                                                   extracellular
                                                                                                                                                                                                                                                                                                                                                                                                                           English.
                                                                                        Ξ
 signal
                                                                                                                                                                                                            95US-0485618
93US-0173497
94US-0286889
94US-0362652
                                                                                                                                                                                                                                                                                                        VIEREN
                                                                                                                                                                                                                                                                                                                                                                                                                            Example 5; Fig 1A-D; 106pp;
                                                                                                                                                                                   95US-0485618
                               17..1108
/label= ex
                                                               150..352
                                                                             'note=
                                                                                                                                                                                                                                                                                                        Gallatin WM, Van DER
                                                                                                                                                                                                                                                                                                                                 WPI; 1998-206565/18.
N-PSDB; AAV35236.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1161 AA;
                                                                                                                                                                                                                                                                              CORP.
                                                                                                                                                                                                                                                                              (ICOS-) ICOS
                                                                                                                                                                                                                                                     21-DEC-1994;
                                                                                                                                                                                   07-JUN-1995;
                                                                                                                                                                                                                           23-DEC-1993;
05-AUG-1994;
                                                                                                                              US5728533-A.
                                                                                                                                                                                                             07-JUN-1995;
                                                                                                                                                         17-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Seguence
            Protein
                                      Domain
                                                                Domain
                                                                                         Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        οp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            용
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

1019 1089 780 793 840 852 900 911 959 971 540 720 733 420 435 480 495 555 900 615 999 673 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG OLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVFLVP PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 781 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF VRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 301 NFEALKTVONOLREKIFAIEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR ONTGMWESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGOVSVCPL 541 HGTSGSGISPSHSORIAGSKLSPRLOYFGOSLSGGODLTMDGLVDLTVGAQGHVLLLRSQ YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT 1090 MVLEEDEVYNAIPIIMGSSVGALLLALITATLYKLGFFKRHYKEMLED 1138 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128 734 853 096 1030 1020 841 901 972 361 481 601 661 421 436 721 g 셤 ò ద 8 셤 ò 엄 ઠે 셤 ઠે 셤 ð ठे g g ઠે ઠે 셤 Š 요 ઠે 셤 ઠે 음 δ

Search completed: November 25, 2003, 14:16:26 Job time : 40.2978 secs

```
413
11179
11179
11151
11189
11189
11181
1181
1034
1034
1031
1031
1031
1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-902-481A-3
3372.5
3372.5
3213.5
3213.5
                                                                                        3201
3201
3192.5
3192.5
                                                                                                                                                                                                                     1536.5
1229.5
1229.5
                                                                                                                                                                                                                                                                                    1128.5
1128.5
1128.5
1009.5
1009.5
1009.6
1009.6
964.6
952.6
954.6
952.6
953.6
954.6
953.6
954.6
955.6
955.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
956.6
                                                                                                                                                                                                     3180
                                                                                                                                                                                  3180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE
    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 3, Appli
Sequence 4, Appli
Sequence 1, Appli
Sequence 3, Appli
Sequence 30, Appli
Sequence 176, Appli
Sequence 6, Appli
Sequence 6, Appli
Sequence 6, Appli
Sequence 7, Appli
Sequence 6, Appli
Sequence 7, Appli
Sequence 6, Appli
Sequence 7, Appli
Sequence 6, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 2, Appli
Sequence 2, Appli
                                                                                                                                                      ; Search time 26.1265 Seconds (without alignments) 8026.803 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                      1 FNLDTENAMTFQENARGFGQ........FKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1: \(\cgr2_6\)\text{pt.tcd_t1/pubpaa/US07}\text{ PUBCOMB. pep: *}\)
2: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/BCT_NEW_PUB.pep: *}\)
3: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US06_PUB_PUB.pep: *}\)
4: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US06_PUBCOMB.pep: *}\)
5: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US07_NEW_PUB.pep: *}\)
5: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US07_NEW_PUB.pep: *}\)
6: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US08_PUBCOMB.pep: *}\)
6: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US08_PUBCOMB.pep: *}\)
9: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US08_PUBCOMB.pep: *}\)
10: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US09_PUBCOMB.pep: *}\)
11: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US09_PUBCOMB.pep: *}\)
12: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US09_PUBCOMB.pep: *}\)
13: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US10A_PUBCOMB.pep: *}\)
14: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US10A_PUBCOMB.pep: *}\)
15: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US10B_PUBCOMB.pep: *}\)
16: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US10B_PUBCOMB.pep: *}\)
17: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US10B_PUBCOMB.pep: *}\)
16: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US10B_PUBCOMB.pep: *}\)
17: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US10B_PUBCOMB.pep: *}\)
18: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US10B_PUBCOMB.pep: *}\)
18: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US10B_PUBCOMB.pep: *}\)
18: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US10B_PUBCOMB.pep: *}\)
18: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US10B_PUBCOMB.pep: *}\)
18: \(\cgr2_6\)\text{pt.cdata/1/pubpaa/US10B_PUBCOMB.pep: *}\)
                         GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-902-481A-3

US-09-902-481A-4

US-09-902-481A-1

US-09-902-481A-1

US-09-902-481A-1

US-09-902-481A-5

US-09-902-481A-5

US-09-945-265-4

US-09-945-265-4

US-09-915-265-4

US-09-915-265-4

US-09-915-265-4
                                                                                                                                                                                                                                                                                                                                                                                                                                               hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-891-943-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-891-943-2
                                                                                                                                                                                                                                                                                                                                                                                                     673684 segs, 184443283 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Published Applications AA:*
                                                                                                                                                         November 25, 2003, 14:20:45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                             OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                     Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              920
                                                                                                                                                                                                                                            US-09-902-481B-3
5879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11137
11153
11153
11153
11153
11137
11137
11163
11163
11161
                                                                                                                                                                                                                                                                                                                                  BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Post-processing:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Total number of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB seq
DB seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Perfect score:
                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                        Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Minimum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Maximum
                                                                                                                                                      Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Result
```

```
Sequence 55, Appl
Sequence 51, Appl
Sequence 37, Appl
Sequence 37, Appl
Sequence 37, Appl
Sequence 46, Appl
Sequence 46, Appl
Sequence 103, App
Sequence 103, App
Sequence 101, App
Sequence 101, App
Sequence 103, Appl
Sequence 2, Appli
Sequence 35, Appli
Sequence 35, Appli
Sequence 35, Appli
Sequence 35, Appli
Sequence 35, Appli
Sequence 36, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 61, Appli
Sequence 5, Appli
Sequence 61, Appli
Sequence 61, Appli
Sequence 61, Appli
Sequence 61, Appli
Sequence 61, Appli
Sequence 61, Appli
Sequence 61, Appli
Sequence 61, Appli
Sequence 61, Appli
Sequence 61, Appli
Sequence 61, Appli
Sequence 61, Appli
Sequence 61, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 453, App
Sequence 1, Appli
Sequence 1, Appli
Sequence 313, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 313, App
Sequence 197, App
     Sequence 99,
Sequence 55, 7
1 US-09-891-943-99

US-09-350-259-55

US-09-350-259-55

US-09-350-259-53

US-09-350-259-37

US-09-350-259-37

US-09-891-943-53

US-09-891-943-53

US-09-891-943-63

US-09-891-943-103

US-09-945-265-2

US-09-891-943-103

US-09-98-103-103

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35

US-09-98-1130-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-125-540-313
US-10-002-631C-197
```

## ALIGNMENTS

```
RIGOPPEAVAMSLGESLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 FNLDTENAMIFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Gaps
                                                                                      APPLICANT: Springer, Timothy
APPLICANT: Shimaoka, Motomu
APPLICANT: Shimaoka, Motomu
APPLICANT: Shimaoka, Motomu
APPLICANT: Shimaoka, Julia
TITLE OF INVENTION: NOVEL PROTEINS WITH INTEGRIN-LIKE ACTIVITY
FILE REFERENCE: A-70586-1/RT/RMS/RMK
CURRENT APPLICATION NUMBER: US/09/902,481A
CURRENT FILING DATE: 2001-07-09
PRIOR APPLICATION NUMBER: US 60/216,600
PRIOR PLING DATE: 2000-07-07
NUMBER OF SEQ ID NOS: 7
SOFFWARE: Patentin version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1137;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
100.0%; Score 5879;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1137; Conservative 0; Mismatches
Sequence 3, Application US/09902481A; Publication No. US20030054440A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHER INFORMATION: synthetic
```

ö

```
HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                         TDGEKFGDPLGYEDVI PELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQ1QSVVT
                                                                                                                                                                                                                                                                                      1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                     RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                            TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NFBALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QNTGMMESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                         1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                               WITH INTEGRIN-LIKE ACTIVITY
                                                                                                                                                                                                                             Score 5857; DB
Pred. No. 0;
3; Mismatches
APPLICANT: Springer, Timothy
APPLICANT: Shimaoka, Moccou
APPLICANT: Shifman, Julia
APPLICANT: Shifman, Julia
APPLICANT: Mayo, Srephen
TITLE OF INVENTION: NOVEL PROTEINS WITH INTEG
FILE REPERENCE: A-70586-1/FT/RMS/RMK
CURRENT APPLICATION NUMBER: US/09/902,481A
CURRENT FILING DATE: 2001-07-09
PRIOR FILING DATE: 2000-070
NUMBER OF SEQ ID NOS: 7
SOFTWARE: Patentin version 3.1
LENGTH: 1137
                                                                                                                                                                                                                             Query Match
Best Local Similarity 99.5%;
Matches 1131; Conservative
                                                                                                                                                                                             OTHER INFORMATION: synthetic
                                                                                                                                                                      ORGANISM: Artificial
                                                                                                                                                                                                       US-09-902-481A-4
                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ⋧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ે
                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                            8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      960
                                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                             420
                                                                                                                                                                                             420
                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1021 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSGTET
                                                                                 TDGEKFGDPLGYEDVI PELDREGVI RYVLGFGDA FRSEKSROELNTVASKPPRDHVFQAN
                                                                                                                           NPEALKTVQNOLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                         NFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                            SLVGTPLSAFGNLRPVLARDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                          SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SCALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OLELPVKXAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGOVSVCPL
                                                                                                                                                                                                                                                                                                           HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                      PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
   FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRWKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                    GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                               RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                       GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 901
                                                                                                                                                 301
                                                                                                                                                                        361
                                                                                                                                                                                             361
                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                           181
                                                                                 241
                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S 8
                                                                                                                                           g &
                                                                                                                                                                                      g
                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                    면
당
연
                                                                                                                                                                                                                                                                                                    8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                            6 B 6 B 6 B 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                    े
                                    ò
```

ö

Gaps

ö

Indels

Length 1137

11; 3,

OB

9 9 120

120 180 180 240 240 300 9 999 720

SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 780

YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF

661

661

g

8

Sequence 4, Application US/09902481A Publication No. US20030054440A1 GENERAL INFORMATION:

US-09-902-481A-4

YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNC1EDPVSP1VLRLNF

900 900

540

480 540

360 360 420 420 480

**S** 

181 RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL 2 	OY 24.1 TDGEKFGOPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSROELMTVASKRPRDHVFQAN 300	301 NFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 36	361 GVPLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVOSLVLGAPRYQHIGLVAMPR 1	421 QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 48	Qy 481 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF 540	541 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTWDGLVDLTVGAQGHVLLLRSQ 60 	Qy 601 EVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIGSVVT 660	Qy 661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF 720	Qy 721 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 780	Qy 781 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV 840	Qy 841 SGALKSTSCSINHPIFPENSEVTENITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF 900	Qy         901 QLELPVKYAVYMVYSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960           1	Qy 961 RLNQTVIWDRPQVIFSENLSSICHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020	BEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSQTET 	Qy 1081 KVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137 	RESULT 4 US-09-902-481A-1 ; Sequence 1, Application US/09902481A ; Publication No. US20030054440A1	; GENERAL INFORMATION: ; APPLICANT: Springer, Timothy ; APPLICANT: Shimaoka, Motomu ; APPLICANT: Shifman, Julia
0		Qy 841 SGALKSTSCSINHPIFPENSËVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF 900	QY 901 QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960 	961 RLNQTVIWDRPQVIFSENLSŠTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 102 	Qy 1021 FFGTQEEFNATLKGNLSFDMYIKTSHNHLLIVSTAEILFNDSVFTLLFGQGAFVRSQTET 1080	Qy         1081 KVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKDWASEGGPPGAEPQ 1137           Db         1081 KVEPPEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKDWASEGGPPGAEPQ 1137	RESULT 3 US-09-350-259-3 ; Sequence 3, Application US/0935q259		; TITLE REFENCE: 27866/35004 ; FILE REFENCE: 27866/35004 ; CURRENT APPLICATION NUMBER: 1999-07-09 ; CURRENT FILING DATE: 1999-07-09	EARLIER APPLICATION NUMBER: 19/193,043  EARLIER APPLICATION NUMBER: 08/173,497  EARLIER FILING DATE: 1993-12-23	; EARLIER APPLICATION NUMBER: 08/286,889 ; EARLIER PILING DATE: 1994-08-08-05 ; EARLIER APPLICATION NUMBER: 08/362,652 ; EARLIER FILING DATE: 1994-12-21	; EARLIER APPLICATION NUMBER: 08/343,363 ; BARLIER FILING DATE: 1997-10-03 ; NUMBER OF SEQ ID NOS: 114 ; SOFTWARE: Patentin Ver. 2.0	; SEQ 11 NO 3 ; LENGTH 1153 ; TYPE: PRT ; ORGANISM: Homo Bapiens	Os-09-330-259-3  Query Match Bast Local Similarity 98.3%; Pred. No. 0; Matches 1124: Conservative 8: Mismatches 5: Indels 0: Gaps 0;	1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI 60	61 RLQVPVEANNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 12: 	QY 121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRWKELVGTIMEQLKKSKTLFSLMQYSEEF 180

856

```
1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILEFNDSVFTLLPGGGAFVRSQTET 1096
                                                                                                                                                                                                                                                                            FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                       KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                       1097 KVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              77 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  917 QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                    QLELPVKYAVYMVTISHGVSTKYLNFTASENTSRVMOHOYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                               GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                           SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                               GPREFINVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                          SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 5839; DB
Pred. No. 0;
8; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Gallatin, Michael W.
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: NO. US20030077278A1el Hum
TITLE REFERENCE: 27866/35.004
CURRENT APPLICATION NUMBER: US/09/891,943
CURRENT FILING DATE: 1998-11-16
PRIOR PRIOR APPLICATION NUMBER: 09/193,043
PRIOR FILING DATE: 1994-06-05
PRIOR FILING DATE: 1994-12-21
PRIOR FILING DATE: 1994-12-21
PRIOR FILING DATE: 1994-12-21
PRIOR FILING DATE: 1994-12-21
PRIOR FILING DATE: 1997-10-03
PRIOR FILING DATE: 1997-10-03
PRIOR FILING DATE: 1997-10-03
                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 3, Application US/09891943; Publication No. US20030077278A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 99.3
Best Local Similarity 98.9
Matches 1124; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ 1D NO 3
LENGTH: 1153
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                      857
                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      137
                                                                                           841
                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                            797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                               셤
                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                       ద
                                                                                       ઠે
                                                                                                                    g
                                                                                                                                                  δ
                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                  136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     317 NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT 660
                                                                                                                                                                                                                                                                                                                                                                                                                    61 RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                    96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        377 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                        17 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                    NFEALKTVQNQLREKIFAİ EGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                               Length 1153
APPLICANT: Mayo, Stephen
TITLE DO INVENTATION: NOVEL PROTEINS WITH INTEGRIN-LIKE ACTIVITY
FILE REFERENCE: A-70586-1/RFT/RMS/RMK
CURRENT APPLICATION NUMBER: US/09/902,481A
CURRENT FILING DATE: 2001-07-09
PRIOR APPLICATION NUMBER: US 60/216,600
PRIOR PILING DATE: 2000-07-07
NUMBER OF SEQ ID NOS: 7
SOFTWARE: Patentin version 3.1
                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                               DB 11;
                                                                                                                                                                                                                                                                                                                          .,
2
                                                                                                                                                                                                                                                                                            Query Match 99.3%; Score 5839; D
Best Local Similarity 98.9%; Pred. No. 0;
Matches 1124; Conservative 8; Mismatches
                                                                                                                                                                                                                                                                                                                                                          1 FNLDTENAMTFQENARGFG
                                                                                                                                                                                               FEATURE:

NAME/KEY: mat_peptide

LOCATION: (17)...()

OTHER INFORMATION:
US-09-902-481A-1
                                                                                                                                                                    TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                      LENGTH: 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                    임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 6 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
```

ö

120 136

94 9

ô

9 9/ 196 240 256

120 136 180 360 376 420 436 480

300 316 496 540 556 919 9

600

720

736 780

919

196

840 856

a ò d ठे 셤 ે 요 >

ò

원 수 명

品 谷 品 谷

8 6 8 6

8 8 8

В ò g ⋧ g ò

```
257 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        YDLALDSGRPHSRAVFNETKNSTRROTQVLGLTQTCETLKLQLPNC1EDPVSP1VLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GPREFNUTVIVRNDGEDSYRTQVIFFFPDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                      1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                           0;
                                                                                                                                                                                 1153;
                                                                                                                                                                                 Length
                                                                                                                                                                                                           Indels
                                                                                                                                                                                                           ..
..
                                                                                                                                                                                 15;
                                                                                                                                                                                 08
                                                                                                                                                                                Score 5839; DE
Pred. No. 0;
8; Mismatches
CURRENT FILING DATE: 2002-09-04
PRICR APPLICATION NUMBER: US 09/758,493
PRIOR FILING DATE: 2001-01.11
PRIOR APPLICATION NUMBER: US 60/221,950
PRIOR PILING DATE: 2000-07-31
NUMBER OF SEQ ID NOS: 30
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 30
LENGTH: 1153
                                                                                                                                                                                Query Match
Best Local Similarity 98.9%;
Matches 1124; Conservative
                                                                                                                                        ; ORGANISM: Homo sapiens
US-10-144-259-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         677
                                                                                                                                                                                                                                                                11
                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                    11
                                                                                                                                                                                                                                                                                                                                                                                                                               197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               737
                                                                                                                           TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RLNQTVIWDRPQVTFSENISSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960
                                          316
                                                                                                                          420
                                                                                                                                                     436
                                                                                                                                                                                480
                                                                                                                                                                                                          496
                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                556
                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                    616
                                                                                                                                                                                                                                                                                                                                               999
                                                                                                                                                                                                                                                                                                                                                                         919
                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                               736
                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDM%SEGGPPGAEPQ 1153
                                                                                                                         TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                  HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                             677 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TDGEKFGDPLGYEDVI PELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                     PWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                   SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                     NFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                           HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                      YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GPREFNVTVTVRNDGEDSYRTQVTFFPPLDLSYRKVSTLONORSORSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 30, Application US/10144259
Publication No. US20030109691A1
GENERAL INFORMATION
APPLICANT: Arnaout, M. Amin
APPLICANT: Li, Rui
APPLICANT: Li, Rui
APPLICANT: Li, Rui
APPLICANT: Li, Rui
APPLICANT: Li, Rui
APPLICANT: Li, Rui
APPLICANT: Li, Rui
APPLICANT: Li, Rui
APPLICATION: VARIANT INTEGRIN POLYPEPTIDES AND USES THEREOF
FILE REPERENCE: 007086-248001
CURRENT APPLICATION NUMBER: US/10/144,259
                                                                                                                                                                                                                                     PRGORARWOCDAVLYGEOGO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-144-259-30
                                                                                                                                                                                                                                                                                                                                                                        617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1097
                                         257
                                                                     301
                                                                                               317
                                                                                                                          361
                                                                                                                                                    377
                                                                                                                                                                                121
                                                                                                                                                                                                        437
                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                497
                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                    557
                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 961
```

496 540 556 909 616 99 9/9 720 736

요

ò g ò 8

8

셤

ò

```
RINQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILENDSVFTLLPGGGAFVRSQTET 1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1097 KVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                               QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                  QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLP1SLVFLVPV
PRGQRARWQCDAVLYGEQQPWGRFQAALTVLGDVNGDKLTDVA1GAPGEEDNRGAVYLF
                                                                                                             YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                              SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                     GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                      GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                           SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                          HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGODLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                   YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                      PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patentin version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHER INFORMATION: synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-902-481A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-902-481A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                      677
                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                            917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: I
                                           481
                                                                     497
                                                                                                 541
                                                                                                                           557
                                                                                                                                                     601
                                                                                                                                                                                617
                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                            737
                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                  797
                                                                                                                                                                                                                                                                                                                                                                                                        857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઢ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                  ઠે
                                                                윤
                                                                                                8
                                                                                                                    셤
                                                                                                                                              ેં
                                                                                                                                                                            ద
                                                                                                                                                                                                            8 8
                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                     중 음
                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                RINQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1036
                                                                                                                                                                                     FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSQTET 1096
                                                                                                                RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                     FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NFEALKTVONOLREKIFALEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN 300
                                                                       917 QLELPVKYAVYMVVTSHGVŞTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 976
                              916
                                                         QLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMOHQYQVSNLGQRSLPISLVFLVPV 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      76
    SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                            KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                       17 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLXQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                    SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                               Sequence 176, Application US/10207655

Publication No. US20030118592A1

GENERAL INFORMATION:
APPLICANT: Leadbetter, Jeffrey
AAPPLICANT: Hadden-Ledbetter, Martha S.
TITLE OF INVENTION: BINDING DOMAIN-IMMUNOGLOBULIN FUSION PROTEINS
FILE REFERENCE: 39069, 401C1
CURRENT APPLICATION NUMBER: US/10/207,655
CURRENT FILING DATE: 2002-07-25
NUMBER OF SEQ ID NOS: 426
SOCTWARE: Patentin version 3.0
SEQ ID NO 176
TYPE:
CURRENT: 1153
TYPE:
CONTRACT: 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .,
2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 5839;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99.3%;
larity 98.9%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 1124; Conserv
                                                                                                                                                                                                                                                                                                              US-10-207-655-176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-207-655-176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                          716
                                                                                                                                                                      1021
                                                                                                                                                                                                1037
                                                                                                                                                                                                                                                    1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                            1081
                                                         901
                                                                                                                 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            음 중
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
```

a ò ò δ

960 916

900 916

840 856

780

```
PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 98.7%;
Matches 1122; Conservative
                                                                                                                                                                                                                                                                                 FEATURE: OTHER INFORMATION: synthetic
                                                                             RESULT 9
US-09-902-481A-6
                                                                                                                                                                                                                                                     LENGTH: 1137
                                                                                                                                                                                                                                                                                                    US-09-902-481A-6
            1021
                               1081
                                                1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                            SEQ ID NO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
            유
                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                             ક
                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    გ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1021 FFGIQEEFNATLKGNLSFÖWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                            120
                                                                                                                  180
                                                                                                                                                        240
                                                                                                                                                                          240
                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                120
                                                                                                                                     180
                                                                                                                                                                                                               300
                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                                                                                                                                           909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                        9
                                                          9
                                                                                                                                                                                                                                  HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                  RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                        RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                            RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                                               PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                          PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                              QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                   PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                         HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                              PULRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                       FNLDTENAMTFQENARGFGQ$VVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                      Gaps
                     ö
  Length 1137;
                     Indels
                     9
   DB 11;
                     Mismatches
  Score 5836;
Pred. No. 0;
                    -
 99.3%;
Query Match
Best Local Similarity 98.9
Matches 1124; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                             61
                                                                                              61
                                                                                                                  121
                                                                                                                                    121
                                                                                                                                                       181
                                                                                                                                                                         181
                                                                                                                                                                                              241
                                                                                                                                                                                                               241
                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                        유
                                                                           ò
                                                                                             g
                                                                                                                                a
                                                                                                                                                                      g
                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                      엄
                                                                                                                                                                                                                                                                                                                                                                 임
                                       ò
                                                                                                                 õ
                                                                                                                                                      ò
                                                                                                                                                                                          ò
                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q
Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

ö 120 120 180 180 240 240 300 300 360 360 420 420 480 480 540 540 9 9 KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137 241 TDGEKPGDPLGYEDVIPEADREGVIRYVIGVGDAPRSEKSRQELNTIASKPPRDHVFQVN 301 NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 61 RLQVPVBAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK NFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEOLKKSKTLFSLMQYSEEF TDGEKFGDPLGYEDVI PELDREGVI RYVLGFGDAFRSEKSRQELNTVASKPPRDHVPQAN GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI 61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF Gaps 1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI QNTGMMESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL Sequence 6, Application US/09902481A
| Sequence 6, Application No. US2030054440A1
| CENERAL INFORMATION:
| APPLICANT: Springer, Timothy
| APPLICANT: Shimaoka, Motomu
| APPLICANT: Shiman, Julia
| APPLICANT: Shiman, Julia
| APPLICANT: Shiman, Julia
| APPLICANT: Shiman, Julia
| APPLICANT: Shiman, Julia
| APPLICANT: Shiman, Julia
| APPLICANT: Shiman, Julia
| APPLICANT: Mayo, Stephen
| TITLE OF INVENTION: NOVEL PROTEINS WITH INTEGRIN-LIKE ACTIVITY
| FILE REFERENCE: A-70586-1/RFT/RMS/RMK
| CURRENT APPLICATION NUMBER: US/09/902,481A
| CURRENT FILING DATE: 2001-07-09
| PRIOR FILING DATE: 2001-07-07
| NUMBER OF SEQ ID NOS: 7
| SOFTWARE: PatentIn version 3.1 ö Length 1137; Indels DB 11; . 9 9; Mismatches Score 5832; Pred. No. 0;

180

436

376 420 480 496

8 6 8 6

6 B 6

a ò a

8 6 8

8 8 8 8

ò

540

555

900 615 9 675 720 780 795 840 855 900 915 960 975

735

1080 1095

> ò g

```
1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1094
                                                                                                                                                                                                                                                                                                                                                                              960 VRINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          80 GLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1035 PSFSVQEELDFTLKGNLSFGWVRQILQKKVSVVSVARITFDTSVYSQLPGQEAFMRAQTT
677 LDLALDPGRLSPRATFQETKNRSLSRVRVLGLKAHCENFNLLLPSCVEDSVTPITLRLNF
                                                               20 FNLDTEELTAFRVDSAGFGDSVVQYANSWVVVGAPQKIIAANQIGGLYQCGYSTGACEPI
                                         SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                        781 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                          SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                             901 QLELPVKYAVYMVTSHGVSTKYLNPTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1095 TVLEKYKVHNPTPLIVGSSIGGLLLLALITAVLYKVGFFKROYKEMMEE 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 58.2%; Score 3423; DB 9; Length 1
Best Local Similarity 60.2%; Pred. No. 3e-307;
Matches 680; Conservative 149; Mismatches 294; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Gallatin, Michael W.
APPLICANT: Gallatin, Michael W.
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. US20020062008Alel Hum
FILLE REFERENCE: 27866/35004
CURRENT APPLICATION NUMBER: US/09/350, 259
CURRENT FILING DATE: 1999-10-16
EARLIER PPLICATION NUMBER: 08/13, 497
EARLIER PILING DATE: 1991-12-23
EARLIER PILING DATE: 1994-05
EARLIER FILING DATE: 1994-05
EARLIER FILING DATE: 1994-05
EARLIER PILING DATE: 1994-12-21
EARLIER PPLICATION NUMBER: 08/36,652
EARLIER PILING DATE: 1994-10-3
EARLIER PILING DATE: 1994-10-3
NUMBER OF SEQ ID NOS: 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 4, Application US/09350259
Patent No. US20020062008A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 12
US-09-350-259-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-350-259-4
                                                                                                                                                                                                          841
                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 4
                                                                          g
                                                                                                                                                       요
                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                       ò
                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                    APPLICANT: Elan Pharmaceutical Technology
APPLICANT: Brayden, David
APPLICANT: Brayden, David
APPLICANT: Brayden, David
APPLICANT: Lambkin, Imelda
APPLICANT: Lambkin, Imelda
APPLICANT: Higgins, Lisa
APPLICANT: Higgins, Lisa
APPLICANT: Higgins, Lisa
APPLICANT: Higgins, Lisa
APPLICANT: Compositions Targeting Peyer's Patches and Mcells and Methods and
TITLE OF INVENTION: Compositions Targeting Peyer's Patches and M Cells Receptors
CURRENT APPLICATION WIMBER: US/10/116,275
CURRENT APPLICATION WIMBER: US/10/116,275
CURRENT FILING DATE: 2002-10-04
NUMBER OF SEQ ID NOS: 349
SOFTWARE: Patentin version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           258 TDGKKEGDSLDYKDVIPMADAAGIIRYAIGVGLAFQNRNSWKELNDIASKPSQEHIFKVE 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NFEALKTVONOLREKIFAIEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRGORARWOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HCTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        YDLALDSGRPHSRAVFNETÄNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 FNLDTENAMTFQENARGFGGSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRGWR-RWWCDAVLYGEQGHPWGRFGAALTVLGDVNGDKLTDVVIGAPGEEENRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 60.5%; Pred. No. 2.2e-309;
Matches 683; Conservative 143; Mismatches 297; Indels
             Sequence 204, Application US/10116275
Publication No. US20030211476A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-116-275-204
                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
```

셤 ઠે d ò g ò g ઠે q ò 셤 ò g ઠે 셤 ò g

ઠે

g

ò

a

ò

õ

```
APPLICANT: Gallatin, Michael W
                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                   ò
                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                          &
                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                         8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                             1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1094
                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                              959
                                                                                 420
                                                                                                                                              540
                                                                                                                                                                                                           600
                                                                                                                                                                                                                                        999
                                                                                                                                                                                                                                                       9/9
                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                     736
                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                   796
                                                                                                                                                                                                                                                                                                                                                                               914
                                                                                                                                                                                                                                                                                                                                                                                                            974
                                                                                                                                                                                           556
                                                                                                                                                                                                                                                                                                                                                 854
                                                             TDGKKEGDSLDYKDVIPWADAAGIIRYAIGVGLAFQNRNSWKELNDIASKPSQEHIFKVE 317
                                                                                                                          LPVSRQECPRQEQDIVFLIDGSGSISSRNFATWANFVRAVISQFQRPSTQFSLMQFSNKF 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                   PVLRVKAIMEFNPREVARNYFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                       YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                    SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEXNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                             QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                       VRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                      VELNOGRAVMMDVEVSHPQNPSLRCSSEKIAPPASDFLAHIOKOPVLDCSIAGCLRFRCDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                           PFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                    TDGEKFGDPLGYEDVI PELDREGVI RYVLGFGDAFRSEKSROELNTVASKPPRDHVFQAN
                                                                                                                                                                                     LDLALAPGRLSPRAIFQETKNRSLSRVRVLGLKAHCENFNLLLPSCVEDSVIPIILRLNF
                                                                                                                                                                                                                                                                                                                                   GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                       RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                             PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                      677
                                                                                                                                                                                                                                                                                                                                                                                                              915
                                                                                                                                                                                                                                                                                                                                                                                                                              960
                                                                                                 318
                                                                                                                               378
                                                                                                                                                                                                                          557
                                                                                                                                                                                                                                                        617
                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                    737
                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                                                                                               855
                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1080
                                                                                 301
                                                                                                                 361
                                                                                                                                              421
                                                                                                                                                              438
                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                  797
                                      198
                                                    241
                                                                                                                                                                             481
                                                                                                                                                                                           498
                                                                                                                                                                                                                                         601
                                   ద
                                                                                             8 6 8
                                                                                                                                                          8 6 8
                                                                                                                                                                                                     B & B &
                                                                                                                                                                                                                                                                  6 6 6
                                                                                                                                                                                                                                                                                                                             8 8 6
                                                                                                                                                                                                                                                                                                                                                                            a y
                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                               셤
                                                                             ઠે
                                                    ò
```

US-09-891-943-4; Sequence 4, Application US/09891943; Publication No. US20030077278A1; GENERAL INFORMATION:

540 900 420 480 556 616 9 919 240 257 317 360 377 437 497 720 736 120 137 180 197 300 9 79 PRGWR-RWWCDAVLYGEQGHPWGRFGAALTVLGDVNGDKLTDVVIGAPGEEENRGAVYLF PVLRVKAIMEFNPREVARNVFECNDOVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL TDGEKFGDPLGYEDVI PELDREGVI RYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR QNTGMMESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF Gaps PNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI . 9 Length 1163; Indels Query Match 58.2%; Score 3423; DB 11; Best Local Similarity 60.2%; Pred. No. 3e-307; Matches 680; Conservative 149; Mismatches 294; ~ APPLICANT: GALLACIN, FILLINGS, TAPLICANT: Van der Vieren, Monica TITLE OF INVENTION: NO. US2003007278Alel Hum FILLE OF INVENTION: NO. US20030077278Alel Hum FILLE REFERENCE: 2766/35004
CURRENT APPLICATION NUMBER: US/09/891,943
CURRENT FILING DATE: 2001.06-26
PRIOR APPLICATION NUMBER: 09/193,043
PRIOR FILING DATE: 1998-11-16
PRIOR FILING DATE: 1994-06-05
PRIOR FILING DATE: 1994-06-05
PRIOR FILING DATE: 1994-12-21
PRIOR FILING DATE: 1994-06-05
PRIOR FILING DATE: 1994-06-05
PRIOR FILING DATE: 1994-06-05
PRIOR FILING DATE: 1994-06-05
PRIOR FILING DATE: 1994-06-05
SROFTWARE: PALENTIN VUMBER: 08/363
PRIOR FILING DATE: 1997-10-03
SOFTWARE: PALENTIN VEY: 2.0 ORGANISM: Homo sapiens US-09-891-943-4 LENGTH: 1163 TYPE: PRT 241 498 541 617 н 20 80 121 181 198 258 361 378 421 438 481 601 661 셤 g ઠે ò

435

480 495 540 555 900 615 9 673 720 733

```
VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLABLRKAPVVNCSIAVCQRIQCDI 1019
VPDATPECPHQEMDIVFLIDGSGSIDQNDFNQMKGFVQAVMGQFEGTDTLFALMQYSNLL 195
                                                                                        TDGEKFGDPLGYEDVI PELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                          NFEALKTVONOLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                   436 QVSRQWRKKAEVTGTQIGSYFGASLCSVDVDSDGSTDLILIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                            496 PRGQRVQWQCDAVLRGEQGHPWGRFGAALTVLGDVNEDKLIDVAIGAPGEQENRGAVYLP
                                                                                                                                                                                                                                                                                                                                                                                                                      SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GPREFNVTVTVRNDGEDSYRTQVTFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         794 SSLELNVIVTVWNAGEDSYGTVVSLYYPAGLSHRRVSGAQKQPHQSALRLACETV-PTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   912 QLELPVKYAVYTMISRQEESTKYFNFATSDEKKMKEAEHRYRVNLSQRDLAISINFWVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PPFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                       HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                              RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                              QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                          PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA1GAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 2, Application US/09891943
Publication No. US20030077278A1
GENERAL INFORMATION:
APPLICANT: Gallatin, Michael W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-891-943-2
                                                                                                                                                     301
                                                                                                                                                                                    316
                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                . 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1030
                                                                                          241
                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                      929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
 136
                              181
                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                         ઠે
                                                   g
                                                                                       ઠ
                                                                                                               ద
                                                                                                                                                     ò
                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                              VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                          PFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                             796
                                                                                                                                       900
                                                                                                                                                                     914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  96
                                 QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                    PLHIRPEAVNMSLGLTLAASTNGSRLLACGPTLHRVCGENSYSKGSCLLLGSRW-EIIQT
              721 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                          781 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                     SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1161;
                                                                                                                                                                                                                                                                                                                                                                                       TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative 168; Mismatches 288;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 3388; DB 9;
Pred. No. 5.3e-304;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 2, Application US/09350259
| Patent No. US20020062008A1
| GENERAL INFORMATION:
| APPLICANT: GALLatin, Michael W. |
| APPLICANT: GALLatin, Michael W. |
| APPLICANT: Van der Vieren, Monica |
| TITLE OF INVENTION: No. US20020062008A1el Hummer |
| FILE REFERENCE: 27866/35004 |
| CURRENT APPLICATION NUMBER: US/09/350,259 |
| CURRENT APPLICATION NUMBER: US/09/330,043 |
| EARLIER FILING DATE: 1999-07-08 |
| EARLIER FILING DATE: 1993-12-23 |
| EARLIER PPLICATION NUMBER: US/173,497 |
| EARLIER PPLICATION NUMBER: US/286,889 |
| EARLIER PPLICATION NUMBER: US/286,889 |
| EARLIER PPLICATION NUMBER: US/286,889 |
| EARLIER PPLICATION NUMBER: US/286,889 |
| EARLIER PPLICATION NUMBER: US/286,889 |
| EARLIER PPLICATION NUMBER: US/286,889 |
| EARLIER PPLICATION NUMBER: US/286,889 |
| EARLIER PPLICATION NUMBER: US/386,889 |
| EARLIER PPLICATION NUMBER: US/386,889 |
| EARLIER PPLICATION NUMBER: US/389,383 |
| EARLIER PPLICATION NUMBER: US/389,383 |
| EARLIER PPLING DATE: 1994-10-03 |
| NUMBER: OF SEO ID NOS: 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         57.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Simil
Matches 665; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-350-259-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-350-259-2
                                         737
                                                                                                                                                                                                                                                                                             975
                                                                                                                                                                                                                                                                                                                                                                                       1080
                                                                                                       797
                                                                                                                                     841
                                                                                                                                                                    855
                                                                                                                                                                                                 901
                                                                                                                                                                                                                                                              960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ID NO 2
                                     셤
                                                                                                                                                         8 & 8
                                                                                                                                                                                                                                                 8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          엄
              ઠ
                                                                      ઠ
                                                                                           8 8
                                                                                                                                                                                                                                                                                                                                                                                    ે
                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

780

793

840

852 900 911 1029 1079 1089

959

装

```
912
   721
                                             781
                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                Search cor
Job time
                                                                                                                                                         셤
                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                 ద
                                                              8 & 8
                                                                                                                                   ઠે
                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                   ઠે
                 8 S
                                                                                                                                                                                                                                                               Ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTWDGLVDLTVGAQGHVLLLRSQ 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99
                                                                                                                                                                                                                                                                                                                               ONTGMWESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 673
                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NFEALKTVONOLREKIFATEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                        76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                      1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                 121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEBF
                                                                                                                                                                                                                                                                                                                                                                                         RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                   376 GAFLYPPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVQNLVLGAPRYQHTGKAVIFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                             .;
8
                                                                                                                                                                                                                                         Length 1161;
                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                        Query Match 57.6%; Score 3388; DB 11; Best Local Similarity 58.9%; Pred. No. 5.3e-304; Matches 665; Conservative 168; Mismatches 288;
TITLE OF INVENTION: No. US20030077278Alel Human 2
FILE REFERENCE: 27866/35004
CURRENT APPLICATION NUMBER: US/09/891,943
CURRENT FILING DATE: 2001-06-26
PRIOR APPLICATION NUMBER: 09/193,043
PRIOR FILING DATE: 1998-11-16
PRIOR FILING DATE: 1998-11-16
PRIOR FILING DATE: 1994-08-05
PRIOR FILING DATE: 1994-11-21
PRIOR FILING DATE: 1994-12-21
PRIOR FILING DATE: 1994-12-21
PRIOR FILING DATE: 1994-10-03
PRIOR FILING DATE: 1994-10-03
PRIOR FILING DATE: 1997-10-03
PRIOR FILING DATE: 1997-10-03
SOFTWARE PRIOR FILING DATE: 1997-10-03
SOFTWARE PRIOR FILING DATE: 1997-10-03
SOFTWARE PRIOR FILING DATE: 200
                                                                                                                                                                                  LENGTH: 1161
TYPE: PRT
CRGANISM: Homo sapiens
US-09-891-943-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                8 8
                                                                                                                                                                                                                                                                                                                                                                                             8 6 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                       ð
```

```
1019
                                                                                                                                                                                              1029
                                                                                                                                                                                                                   1079
                                                                                                                                                                                                                               840
                                                                                    900
                                                                                                       911
                                                                                                                             959
                                                                                                                                                  971
780
                   793
                                                              852
             SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                 SCALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                 QLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVPLVP
                                                                                                                                          960 VRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                      1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
```

Search completed: November 25, 2003, 14:41:11 Job time: 31.1265 secs

```
FNLDTENAMTEQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
  Sednence
Sednence
Sednence
Sednence
Sednence
Sednence
Sednence
Sednence
Sednence
Sednence
Sednence
Sednence
Sednence
Sednence
                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99.3%; Score 5839; DB 1; Length 1153; 98.9%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 3, Application US/08173497
Patent No. 5437958
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Gallatin, W. Michael
APPLICANT: Gallatin, W. Michael
APPLICANT: Van Der Vieren, Monica
TITLE OF INVENTION: No. 5437958el Human 2 Integrin Alpha
TITLE OF INVENTION: Subunit
NUMBER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  E: Marshall, O'Toole, Gerstein, Murray & Borun
233 S. Wacker Drive, 6300 Sears Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: 233 S. Wacker Drive, 6300 Sears Tower CITY: Chicago STATE: 11linois STATE: 11linois COUNTRY: USA ZIP: 60606-6402 COUNTRY: USA COMPUTER READABLE FORM: MEDIUM TYPE: FORM: PC-DOS/MS-DOS COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentl IN Release #1.0, Version #1.25 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/173,497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2
US-08-605-672-2
US-08-481-293A-2
US-08-481-363-2
US-09-193-043-2
US-09-688-307A-2
US-08-485-618-99
US-08-485-618-99
US-08-482-293A-99
US-08-193-043-99
US-09-193-043-99
US-09-193-043-55
US-08-688-307A-99
US-09-193-043-55
US-08-185-618-55
US-08-485-618-55
US-08-485-618-55
US-08-485-618-55
US-08-485-672-55
US-08-688-307A-55
US-08-485-618-55
US-08-485-672-55
US-08-688-307A-55
US-08-688-307A-55
US-08-688-307A-55
US-08-688-307A-55
US-08-688-307A-55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
CLASSIFICATION: 435
ATTONNEY (AGENT INFORMATION:
NAME: No. 5437958and, Greta E.
REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 27866/31363
TELEPHONE: 312-474-630
TELEPHONE: 312-474-630
TELEPHONE: 312-474-630
TELEPK: 25-3856
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHRACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                         ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 1153 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity 98.9
Matches 1124; Conservative
  MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 1
US-08-173-497-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-173-497-3
                                         33388
33388
333728
333728
333728
333728
333728
33728
33728
33728
33728
33728
33728
33728
33728
33728
34728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
35728
3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
                                                                                                                                        November 25, 2003, 14:13:09; Search time 13.5618 Seconds (without alignments) 3547.268 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                            US-09-902-481B-3
5879
1 FNLDTENAMTFQENARGFGQ......PKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 3,
Sequence 43,
Sequence 43,
Patent No. 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Seguence 44
Seguence 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 3
Sequence 3
Sequence 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 4
Sequence 4
Sequence 4
Sequence 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 4
Sequence 4
Sequence 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence Sequence Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Issued_Patents AA:*

1: /cgn2_6/ptodata/1/laa/5A_COMB.pep:*

2: /cgn2_6/ptodata/1/laa/5A_COMB.pep:*

3: /cgn2_6/ptodata/1/laa/6A_COMB.pep:*

4: /cgn2_6/ptodata/1/laa/6B_COMB.pep:*

5: /cgn2_6/ptodata/1/laa/PCTUS_COMB.pep:*

6: /cgn2_6/ptodata/1/laa/PCTUS_COMB.pep:*
                       GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-173-497-3

US-08-456-889-3

US-08-456-68-3

US-08-462-572-3

US-08-492-293A-3

US-08-492-293A-3

US-09-493-363-3

US-09-493-363-3

US-09-493-303-3

US-09-493-304-3

US-09-476-062A-4

US-08-476-062A-4

US-08-476-062A-4

US-08-266-889-4

US-08-266-889-4

US-08-266-889-4

US-08-266-889-4

US-08-266-889-4

US-08-266-889-4

US-08-266-889-4

US-08-266-889-4

US-08-266-889-4

US-08-266-889-4

US-08-266-889-4

US-08-266-889-4

US-08-266-889-4

US-08-266-889-4

US-08-268-889-4

US-08-268-889-4

US-08-268-889-4

US-08-193-043-4

US-08-193-043-4

US-08-193-043-4

US-08-193-043-4

US-08-193-043-4

US-08-193-043-4

US-08-193-043-4

US-08-193-043-4

US-08-193-043-4

US-08-193-043-4
                                                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                             328717 segs, 42310858 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries
                                                                                                       OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                               BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Minimum DB seq
Maximum DB seq
                                                                                                                                                                                                                                                Perfect score:
                                                                                                                                                                                                                                                                                                               Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Database
                                                                                                                                                 Run on:
```

ö 9

g

8 6 8

8 8

8 6 8 6 8 6 8

```
FILING DAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRRAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1036
                                                                                                                                                                                  316
                                                                                                                                                                                                               360
                                                                                                                                                                                                                                            376
                                                                                                                                                                                                                                                                                                                                                             496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   976
                                      180
                                                                                              240
                                                                                                                                                       300
                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                     436
                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                      556
                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            916
         136
                                                                 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QLELPVKYAVYMVVISHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QLELPVKYAVYMVVTSHQVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
RLQVPVEAVMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                   FPEALRGCPQEDSDIAPLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                   137 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                             RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                            TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                    NFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                           QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                              PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                        497 PRGQRARWQCDAVLYGEQQQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                   HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGJIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFERNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GPREFNVTVTVRNDGEDS/RTQVTFFFPLDLS/RRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 196
 77
                                    121
                                                                                                                                                     241
                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                   377
                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                             437
                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                             181
```

දු ද

8 6

6 B 6

8 8

6 6 6 6 6

g

ద

8

ò

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TDGEKFGDPLGYEDVI PEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RLQVPVEAVMSLGLSLAAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gapa
                                                                                                     Integrin Alpha Subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1153
                                                                                                                                                         Borun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                    3: Marshall, O'Toole, Gerstein, Murray 233 South Wacker Drive, 6300 Sear Towe:
                                                                                                                                                                                                                                                                                                                                  PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 5839; DE
Pred. No. 0;
8; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION: 435
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
FILING DATE: 23-DEC-1993
ATTORNEY/AGENT INFORMATION:
NAME: Williams Jr., JOSeph A.
REGISTRATION NUMBER: P38,659
REFERENCE/DOCKET NUMBER: 27866/32168
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-474-6300
US-US-ZOU-EBS-3

Sequence 3, Application US/08286889

Patent No. 5470953

GENERAL INFORMATION:

APPLICANT: GAllatin, W. Mich
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. 5470953el Hum
MUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerst
STREET: 233 South Wacker Drive, 630
CITY: Chicago
STATE: Illinois
COUNTRY: United States
ZIP: 6606-6402
COMPUTER: READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: BIM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFFWARE: PatentIn Release #1.0, Ver;
APPLICATION NUMBER: US/08/286,889
FILING DAFF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99.3%;
98.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1153 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 98.9
Matches 1124; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEX: 25-3856
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               , MOLECULE TYPE: protein US-08-286-889-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
```

셤 ò 셤 ò 셤 ò g ò g ð 셤 ò g ò g ò g ò g ઠે g ò g ò

```
241 TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          257 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301 NFEALKTVONOLREKIFAIEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    377 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRGORARWOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/485,618
FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/173,497
PILING DATE: 23-DEC-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/286,889
FILING DATE: 5-AUG-1994
PRIOR APPLICATION NUMBER: US 08/286,889
FILING DATE: 1-DEC-1994
APPLICATION NUMBER: US 08/362,652
FILING DATE: 21-DEC-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99.3%; Score 5839; D
98.9%; Pred. No. 0;
iive 8; Mismatches
                                                                                                                                                                                                                                                                                                                         NAME: Williams Jr., Joseph A. REGISTRATION NUMBER: 38,659 REFERENCE/DOCKET NUMBER: 27866 TELECOMMUNICATION INFORMATION: TELEPHONE: 312-474-6300 TELEFAX: 312-474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1153 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: amino acid

STRANDEDNESS: single

; TOPOLOGY: linear

; MOLECULE TYPE: protein

US-08-485-618-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 98.9
Matches 1124; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           917 QLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 976
                                                   GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 436
                                                                                                         480
                                                                                                                               PRGORARWOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF 540
                                                                                                                                                                                                                                                                                                                                                PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT 660
                                                                                                                                                                                                                                                                                                                                                                                       676
                                                                                                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLFGQGAFVRSQTET
                                                                                                                                                                                                                                                                    HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                       PVLRVKAIMEFNPREVARNVFECNDQVVKGKGAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QLELPVKYAVYMVVTSHGVŠTKYLNFTASENTSRVMQHQYQVSNLGQRSLP1SLVFLVPV
                                                                                                                                                                                                            PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                          GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                         QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 3. Application US/08485618
Patent No. 5728533
GENERAL INFORMATION:
APPLICANT: Gallatin, W. Michael
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. 5728533el Human 2 Integrin Alpha Subunit
NUMBER OF SEQUENCES: 103
CORRESPONDENCE ADDRESS:
ADDRESSER: Marshall, O'Toole, Gerstein, Murray & Borun
STREET: 233 South Wacker Drive, 6300 Sear Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STATE: Illinois
COUNTRY: United States
ZIP: 60606-6402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 3
US-08-485-618-3
                                                               377
                                                                                                                                                                                                                                                                                                                                                                                       617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                         421
                                                                                                                                              437
                                                                                                                                                                                     481
                                                                                                                                                                                                                            497
                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                         557
                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
```

ö

Gaps

ö

120

92

136

180 196 240 360

376

316

256

ö

. 0

120

92

136 180 196

```
GPREFNYTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181 RIHFTFKEPONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   317 NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421 QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301 NPEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  377 GVFLYTSKEKSTFINMTRVDSDWNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                61 RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                               121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                         241 TOGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                      17 FWLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                      1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                           99.3%; Score 5839; DB 1; Length 1153; 98.9%; Pred. No. 0;
                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                         2,
                                                                                                                                                                                                                                                         8; Mismatches
REGISTRATION NUMBER: 38,659
REFERENCE/DOCKET NUMBER: 2786
TELECHONE: 312-474-6300
TELEX: 25-3856
INPORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1153 amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: amino acids
                                                                                                                                                                                                                           Query Match
Best Local Similarity 98.99
Matches 1124; Conservative
                                                                                                                                                                               MOLECULE TYPE: protein
                                                                                                                                                                   linear
                                                                                                                                                                   TOPOLOGY:
                                                                                                                                                                                    , MOLECULE T
US-08-362-652-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1021 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                           RLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                            1037 FFGIQEEFNATLKGNLSFDMYIKTSHNHLLIVSTAEILENDSVFTLLPGGGAFVRSQTET 1096
                                                                                                                                                                                                                             840
                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                  99
                                                                            919
                                                                                                         720
                                                                                                                                     736
                                                                                                                                                                   780
                                                                                                                                                                                               796
                                                                                                                                                                                                                                                         856
                                                                                                                                                                                                                                                                                                                    916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQXKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                  PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                          SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNI CQDDLSI TFSFMSLDCLVVG
                                                                                                                                                                                    SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                           GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                              SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                       SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                   QLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                           YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 3, Application US/08362652
Patent No. 5766850
GENERAL INCRMATION:
GENERAL INCRMATION:
APPLICANT: Gallatin, W. Michael
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. 5766850el Human 2 Integrin Alpha 8
NUMBER OF SEQUENCES: 93
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSE: Marchall, O'Toole, Gerstein, Murray & Born STREET: 233 South Wacker Drive, 6300 Sear Tower CITY: Chicago STAFE: 111inois COUNTRY: United States COMPUTER: ENDABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible COMPUTER: IBM PC compatible COMPUTER: TATE: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION NUMBER: US/08/362,652 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/173,497
FILING DATE: 23-DEC-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/286,889
FILING DATE: 5-AUG-1994
ATTORNEY/AGENT INFORMATION:
NAME: Williams Jr., Joseph A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-362-652-3
                                                                          617
                  557
                                                                                                                                                                                                 737
                                                                                                                                                                                                                                                         797
                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                     857
                                                                                                                                                                                                                                                                                                                                                                                917
                                                                                                                                                                                                                                                                                                                                                                                                              961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1097
                                                601
                                                                                                           661
                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                          g
                                                                          g
                                                                                                        ò
                                                                                                                               셤
                                                                                                                                                              ò
                                                                                                                                                                                          셤
                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                             ò
```

480

420

436

300

256

316

360

376

540 556 900 616 9 919 720 736

```
301
                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       . 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                 19
                                                                                                                                                                    121
                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                        유
                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                 ઠે
                                                                                                                 ઠે
                                                                                                                                                                                        셤
                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                  윰
                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                    ઠ
                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                         FFG1QEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSQTET 1096
                                                                                                                             RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                         QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960
                                                                                                                                                                                                                                  KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                              GPREFNVTVTVRNDGEDSYR†QVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                  SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                         SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                        2 Integrin Alpha Subunit
                                                                                                                                                                                                                                                                                                                                                                                                                            3: Marshall, O'Toble, Gerstein, Murray & Borun
233 South Wacker Drive, 6300 Sear Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/605,672
                                                                                                                                                                                                                                                                                                                     Sequence 3, Application US/0860672
Patent No. 5817515
GENERAL INFORMATION:
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. 5817515el Human 2
NUMBER OF SEQUENCES:
ADDRESSEE: Marshall, O'Toole, Gerstein, M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Williams Jr., Joseph A.
REGISTRATION NUMBER: 38,659
REFERNCE/DOCKET NUMBER: 27866/32684
TELECOMMINICATION INFORMATION:
TELEPHONE: 312-474-6300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
CLASSIFICATION NOMBER: US/06/805,072
FILING DATE:
APPLICATION DATA:
APPLICATION NUMBER: US 08/173,497
FILING DATE: 23-DEC-1993
FILING DATE: 5-AUG-1994
FILING DATE: 5-AUG-1994
FILING DATE: 5-AUG-1994
FILING DATE: 1-DEC-1994
APPLICATION NUMBER: US 08/362,652
FILING DATE: 21-DEC-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: Chloss STATE: Illinois COUNTRY: United States ZIP: 60606-6402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1153 amino acida
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: amino acid

STRANDEDNESS: aingle

; TOPOLOGY: linear

; MOLECULE TYPE: protein

US-08-605-672-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    312-474-0448
                                                                                                                                                                                                                                                                                                           -08-605-672-3
                                                                                                   917
                                                                                                                                                                               1021
                                                                                                                                                                                                                                  1081
797
                         841
                                                  857
                                                                          901
                                                                                                                            961
                                                                                                                                                       977
                                                                                            ద
셤
                         ò
                                              g
                                                                  õ
                                                                                                                         ò
                                                                                                                                             q
                                                                                                                                                                                                    g
                                                                                                                                                                                                                                ò
                                                                                                                                                                            ò
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1036
                                                                                                                                                   120
                                                                                                                                                                                         136
                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                              256
                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                        316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              976
                                                                                                                                                                                                                                                                196
                                                                             9
                                                                                                             9/
                                                                                                                                                 RLQVPVEAVMMSLGLSLAAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                     77 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                        257 TDGEXPGDPLGYEDVIPEADREGVIRYVIGVGDAPRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  317 NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           497 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA1GAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PVLRVKA IMEFNPREVARNV FECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSP1VLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               737 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            917 QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RINQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                                                                                                                                                      RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARXNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HGTSGSG1SPSHSQR1AGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        617 PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                                                                             FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                          197 RIHFTEKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILLVVI
                                                                                                                                                                                                                                                                                                                                                                                  TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                              NFEALKTVONOLREKI PAI EGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SCALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                         1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                             FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                  Gaps
                                       ö
 Length 1153
                                     Indels
                                     .,
 .;
~
 08
                                   8; Mismatches
99.3%; Score 5839;
98.9%; Pred. No. 0;
                   Similarity 98.9
24; Conservative
                 Best Local Simi
Matches 1124;
```

임 ò

```
PFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               917 QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSQTET
                                                                                                                                                                                     NFEALKTVQNQLREKI FAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                               QNTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                              HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
FPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                   RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                      TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                      TDGEKFGDPLGYEDVI PEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                        PRGORARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGBEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                              HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                      ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                        GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 7
US-08-943-363-3
Sequence 3, Application US/08943363
Patent No. 5837478
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                       317
                                                                                                                                                                                                                                                                                                                                                             437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1021
                                                    181
                                                                                                                       241
                                                                                                                                                     257
                                                                                                                                                                                       301
                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                        377
                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                            ठे
                                                                               용
                                                                                                                    ઠે
                                                                                                                                              셤
                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                   용
                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ⋧
                      FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
     FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLFGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 FPEALRGCPQEDSDIAFLİDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  76
                                                                      KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKROYKDMMSEGGPPGAEPQ 1137
                                                                                        17 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 PNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                            2 Integrin Alpha Subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1153
                                                                                                                                                                                                                                                                                                                             E: Marshall, O'Toole, Gerstein, Murray & Borun
233 South Wacker Drive, 6300 Sear Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER EADABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: Patentin PC-DOS/WS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/482,293A
FILING DATE: US/08/482,293A
FILING DATE: 23-DEC-1993
RICH APPLICATION NUMBER: US 08/173,497
FILING DATE: 2-DEC-1993
RICH APPLICATION NUMBER: US 08/286,889
FILING DATE: 5-AUG-1994
RICH APPLICATION NUMBER: US 08/362,652
FILING DATE: 21-DEC-1994
ATTORNEY/AGENT INFORMATION:
NAME: WIlliams JI., OSGEPH A.
REGISTRATION NUMBER: 38,659
REFERENCE/COMPUTENT NUMBER: 38,659
REFERENCE/COMPUTENT NUMBER: 27866/32684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 5839; DB 2;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8; Mismatches
                                                                                                                                                                                                                                       APPLICANT: Gallatin, W. Michael
APPLICANT: Van der Vieren, Monica
TITE OF INVENTION: No. 5831029el Human
NUMBER OF SEQUENCES: 103
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                         Sequence 3, Application US/08482293A
Patent No. 5811029
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: 778
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-474-6300
TELEFAX: 312-474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99.3%;
                                                                                                                                                                                                                                                                                                                                                        CITY: Chices.
STATE: 111inois
COUNTRY: United States
ZIP: 60606-6402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 1153 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Simitaricy ....
Matches 1124; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEX: 25-3856
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-482-293A-3
                                                                                                                                                                       US-08-482-293A-3
                                                                                                                                                                                                                                                                                                                                               STREET:
                                                                      1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
```

780

796

720 736

540

556 900

480 496

300 316 360 376 420 436 919 999 919 1020

ð 셤 ò

900

916

840 856

420

```
1021 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        977 RINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPO 1153
                                                                                                                                                                                                                                                                                                                                          857 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         917 QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLP1SLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
                        GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                             GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                     QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                            QNTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                   PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                     HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                         YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SQUENCE 3. Application US/09193043
Fatent No. 6251395
GENERAL INFORMATION:
APPLICANT: Gallatin, Michael W.
APPLICANT: Gallatin, Michael W.
TITLE OF INVENTION: No. 6251395e1 Human 2
FILE REFERENCE: 27866/35004
CURRENT APPLICATION NUMBER: US/09/193,043
CURRENT FILING DATE: 1998-11-16
EARLIER APPLICATION NUMBER: 08/173,497
EARLIER FILING DATE: 1994-08-05
EARLIER FILING DATE: 1994-08-05
EARLIER FILING DATE: 1994-08-05
EARLIER FILING DATE: 1994-12-21
EARLIER FILING DATE: 1994-12-21
EARLIER FILING DATE: 1994-12-21
EARLIER FILING DATE: 1994-12-21
EARLIER FILING DATE: 1994-12-21
EARLIER FILING DATE: 1994-12-21
EARLIER FILING DATE: 1997-10-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-193-043-3
                                                                                                                                                                                                                        497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1081
                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1097
                                                                                                                                                                                481
                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                              377
                                                                                                                                           437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                     ò
                                                                                                                                   a
                                                                                                                                                                              Š
                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                             ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NFEALKTVONOLREKIFAIEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     137 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    77 RLQVPVEAVNMSLGLSLAAŢTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FNLDTENAMTFQENARGFGGSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMOYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                           n, |Monica
5837478el Human 2 Integrin Alpha Subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1153;
                                                                                                        Borun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5; Indels
                                                                                               2: Marshall, O'Toole, Gerstein, Murray & 233 South Wacker Drive, 6300 Sear Tower
                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/943,363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
99.3%; Score 5839; D
Best Local Similarity 98.9%; Pred. No. 0;
Matches 1124; Conservative 8; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27866/32684
                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 03/04/745/503/CLASSIFICATION: 530
PRIOR APPLICATION DATA: APPLICATION NUMBER: US 08/173,497
FILING DATE: 23-DEC-1993
PRIOR APPLICATION DATA: APPLICATION NUMBER: US 08/286,889
FILING DATE: 5-AUG-1994
PRIOR APPLICATION DATA: APPLICATION NUMBER: US 08/362,652
FILING DATE: 21-DEC-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Williams Jr., Joseph A. REGISTRATION NUMBER: 38,659
REFERENCE/DOCKET NUMBER: 27866
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-474-6300
TELEFAX: 312-474-6448
APPLICANT: Gallatin, W. Michael
APPLICANT: Van der Vieren, Moni
TITLE OF INVENTION: No. 5837478
NUMBER OF SEQUENCES: 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 1153 amino acida
                                                                                                                                                                              RY: United States
60606-6402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                               CORRESPONDENCE ADDRESS:
                                                                                                 ADDRESSEE: Marsha
STREET: 233 South
CITY: Chicago
STATE: Illinois
COUNTRY: United S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX:
TELEX: 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-943-363-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
```

g

ò

a

ò

g

ò

a ò g ò g

ò

916 960

840

856 900

780 796

99 919 720 736

916

```
RINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NFEALKTVONOLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                          KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                      KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
                                                                                          1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1153,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 4;
                                                                                                                                                                                                                                              APPLICANT: Validation, michael w.

APPLICANT: Validation, michael w.

TITLE OF INVENTION: No. 6432404el Human Beta-2
FILE REFERENCE: 27866/36646
CURRENT APPLICATION NUMBER: US/09/688,307A
CURRENT FILING DATE: 2000-10-13
PRIOR APPLICATION NUMBER: 09/193,043
PRIOR APPLICATION NUMBER: 09/605,672
PRIOR APPLICATION NUMBER: 08/605,672
PRIOR APPLICATION NUMBER: 08/173,497
PRIOR FILING DATE: 1996-02-2
PRIOR FILING DATE: 1994-02-3
PRIOR FILING DATE: 1994-12-3
PRIOR FILING DATE: 1994-12-3
PRIOR FILING DATE: 1994-10-03
PRIOR FILING DATE: 1994-12-21
PRIOR FILING DATE: 1994-12-21
PRIOR FILING DATE: 1997-10-03
NUMBER: OF SEQ ID NOS: 114
SOFTWARE PATENTIN VET: 2.0
SOFTWARE PATENTIN VET: 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99.3%; Score 5839; D
98.9%; Pred. No. 0;
tive 8; Mismatches
                                                                                                                                                                                                    Sequence 3, Application US/09688307A Patent No. 6432404 GENERAL INFORMATION: APPLICANT: Gallatin, Michael W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 99.3
Best Local Similarity 98.9
Matches 1124; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-688-307A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                    961
                                                                                1021
                                                                                                                          1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                         716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>ያ</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                             8 8 8
                                                                                               g
                                                                                                                     δ
                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF 900
                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                          376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 496
                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                     436
                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960
                                                                                                                                                                                  120
                                                                                                                                                                                                         136
                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                256
                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                             316
                                                                                                                                                                                                                                                     196
                                                                                                                                                           16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRGORARWOCDAVLYGEOĠOPWGRFGAALTVLGDVNGDKLTDVAIGAPCEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                    RLOVPVEAVNMSLGLSLAATTSPPOLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKWRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                        TDGEKFGDPLGYEDVI PELDREGVIRYVLGFGDAFRSEKSROELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                 NFEALKTVQNQLREKI FAI EGTQTGSSSSFEHEMSQEGFSAAI TSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                            ONTGMWESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGOVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  557 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTWDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                 PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                             FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                        FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                  Gaps
                                                                                                                   ö
                                                                                           Length 1153;
                                                                                                                  Indels
                                                                                                                  υ,
..
                                                                                              DB 3;
                                                                                          Score 5839; DE
Pred. No. 0;
8; Mismatches
                                                                                             Query Match
Best Local Similarity 98.9%;
Matches 1124; Conservative
   NUMBER OF SEQ ID NOS: 114
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 3
                                               TYPE: PRT
ORGANISM: Homo sapiens
                                     LENGTH: 1153
                                                             ; OKGANALU...
US-09-193-043-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                       137
                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                257
                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                       377
                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                              17
                                                                                                                                                                                    61
                                                                                                                                                                                                         17
                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                  197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                    8 6 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 8 6
6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                              g
                                                                                                                                                                                    ò
                                                                                                                                                                                                      원
                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                       g &
                                                                                                                                        ઠે
```

120 136 180 196 240

9 16

Gaps

. 0

300 316

```
PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNCDKLTDVAIGAPGEEDNRGAVYLF 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                137 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241 TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      257 TDGEKRGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NFEALKTVONOLREKI FAIEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        317 NFEALKTIQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         377 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQOPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QNTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRG-RARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7;
COMPUTER: IBM Compatible
OPERATING SYSTEM: Windows95
SOFTWARE: FastSED for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/476,062A
FILING DATE: O7-JUN 1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/216,081
FILING DATE: 21-MAR-1994
APPLICATION NUMBER: 07/637,830
FILING DATE: 04-JAN 1991
APPLICATION NUMBER: 07/539,842
FILING DATE: 18-JUN 1990
APPLICATION NUMBER: 07/539,842
FILING DATE: 28-JUN 1990
APPLICATION NUMBER: 07/512,573
FILING DATE: 28-JUN 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
98.8%; Score 5808.5;
Best Local Similarity 98.6%; Pred. No. 0;
Matches 1121; Conservative 8; Mismatches
                                                                                                                                                                                                                                                                                                                 00786/068003
                                                                                                                                                                                                                                                                                              29,066
                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION:
TELEPHONE: 617/542-5070
TELEFAX: 617/542-8906
                                                                                                                                                                                                                                                                                                                                                                        TELEX: 200154
INFORMATION FOR SEQ ID NO: 43
SEQUENCE CHARACTERISTICS:
LENGINE: 1152 amino acids
TXPE: amino acids
                                                                                                                                                                                                                                                                            NAME: Freeman, John W.
REGISTRATION NUMBER: 29,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE: protein FRAGMENT TYPE: internal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-476-062A-43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RLNQTVIWDRPQVTFSENL$STCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPQGGAFVRSQTET 1096
                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                  736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                        496
                                                                                                                                                                                                                                                                            616
                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                               919
                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                  780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KVEPFEVDNPLPLIVGSSVÅGLLLLALITAALYKLGFFKRQYKDNMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                            PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                  YDLALDSGRPHSRAVFNETKNSTRROTQVLGLTQTCETLKLOLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLP1SLVFLVPV
   NFEALKTIQNQLREKIFA1EGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                    QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                           QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                           PRGORARWOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                             PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                          HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                              PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                 YDLALDSGRPHSRAVFNETKWSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                  SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-476-062A-43

Sequence 43, Application US/08476062A

Sequence 58772F

GENERAL INFORMATION:
TITLE OF INVENTION: CONTROLLING CELLULAR IMMUNE/INFLAMMATORY
TITLE OF INVENTION: CONTROLLING CELLULAR IMMUNE/INFLAMMATORY
TITLE OF INVENTION: SESPONSES WITH BETA2 INTEGRINS
NUMBER OF SEQUENCES: 53
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
STREET: 225 Franklin Street
CITY: Boston
STATE: MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: US
ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                            557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1097
                                     361
                                                                    377
                                                                                                      421
                                                                                                                                      437
                                                                                                                                                                         481
                                                                                                                                                                                                         497
                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                             617
                                                                                                                                                                                                                                                                                                                                                                                 199
                                                                                                                                                                                                                                                                                                                                                                                                                 677
                                                                                                                                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 10
                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                     ò
                                                                    g
                                                                                                      ઠે
                                                                                                                                ద
                                                                                                                                                                      ò
                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

9 9/ 136 180 196 240

256 300 316 360 480

496

420 436

```
PCT-US96-01314-43
                                 LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                  17
                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                            377
                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                              ઠ
                                                                                                                                                                 셤
                                                                                                                                                                                        ઠે
                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                         RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                  FFGIQEBFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                       915
                                                                                                                                                                                                                                                            QLELPVKXAVYMVTSHGVŠTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960
                                                      675
                                                                            720
                                                                                                                        780
                                                                                                                                             795
                                                                                                                                                                                          855
                                  9
                                                                                                 735
                                                                                                                                                                                                                                                                                                                                                                                                KVEPFEVPNPLPLIVGSSVGGLLLIALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                        SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                     GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                GPRESNVIVIVENDGEDSYRIQVIFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                               SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                             YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                       SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                              PVLRVKAIMEFNPREVARNYPECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGOIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                               PCT-US96-01314-43

Sequence 43, Application PC/TUS9601314
GENERAL INFORMATION:
APPLICANT: M. Amin Arnaout
TITLE OF INVENTION: METHODS FOR IDENTIFYING INTEGRIN
TITLE OF INVENTION: MATAGONISTS
NUMBER OF SEQUENCES: 78
CORRESPONDENCE ADDRESS:
ADDRESSE: Fish & Richardson P.C.
STREET: 225 Franklin Street
CITY: Boston
STATE: Massachusetts
COUNTRY: U.S.A.
ZIP: 02110-2804
COMPUTER: IBM PS/2 Model 50Z or 55SX
COMPUTER: IBM PS/2 Model 50Z or 55SX
OPERATING SYSTEM: MS-DOS (Version 5.1)
SOFTWARE: MOTOPERFECT (Version 5.1)
CURRENT APPLICATION DATA:
RELING DATE: 30-JAN-96
FILING DATE: 30-JAN-95
FILING DATE: 30-JAN-95
FILING DATE: 30-JAN-95
FILING DATE: 30-JAN-95
FILING DATE: 30-JAN-95
FILING DATE: 30-JAN-95
FILING DATE: 30-JAN-95
FILING DATE: 30-JAN-95
FILING DATE: 30-JAN-95
FILING DATE: 30-JAN-95
FILING DATE: 30-JAN-95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         00786/267001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: John W. Freeman
REGISTRATION NUMBER: 29,066
REFREENCE/DOCKET NUMBER: 0078
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 542-5070
TELEPAX: (617) 542-8906
                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                    916
                                                                                                                                                                                                                                                                                                                                                                                                    1081
                                                        919
                                                                               661
                                                                                                    9/9
                                                                                                                         721
                                                                                                                                                                      781
                                                                                                                                                                                           964
                                                                                                                                                                                                                                        856
                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                           961
                                  601
                                                      g
                                                                            ò
                                                                                                셤
                                                                                                                     8
                                                                                                                                           g
                                                                                                                                                                    ò
                                                                                                                                                                                     g
                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                 ò
```

```
420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                                                                                                                                 316
                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      915
                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                 376
                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                           196
                                                                                                                                                                                                                                                                                                                                              256
                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                          136
                                                                                                                                                                  9
                                                                                                                                                                                        96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                      PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PVLRVKAIMEPNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GPRESNVTVTVRNDGEDSYRTQVTFFFPDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TDGEKFGDPLGYEDVI PELDREGVI RYVLGFGDA FRSEKSRQELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                                                                                                            301 NFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                  RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                    197 RIHFTEKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILVVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                  FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                  1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                               Length 1152
                                                                                                                                         ;
                                                                                                                                         Indels
                                                                                                                DB 5;
                                                                                                                                         7;
                                                                                                               Score 5808.5; Pred. No. 0; 8; Mismatches
              43:
                                                                                                                98.8%;
                                                                                                                               Best Local Similarity 98.6
Matches 1121; Conservative
TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                 TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: linear
                                        1152
```

615

999

675 720 735 780

ઠે g ઠ g ò g ટ g

```
FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                             1081 KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1096 KVEPPEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMASEGGPPGAEPQ 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLP1SLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSPP1SLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          976 RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1036 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGOGAFVRSOTET
PRG-RARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                              SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                       SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                          556 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTWDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                       616 PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                              796 GPRESNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                      HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                               PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                              YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                       SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                    GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IMMUNE/INFLAMMATORY INTEGRINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTY: US
ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette COMPUTER: 1BM Compatible
COMPUTER: TABM Compatible
OPERATING SYSTEM: Windows95
SOCTWARE: FRACESO for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/476,062A
FILING DATE: 07-JUN-1995
FILING DATE: 21-MAR-1994
APPLICATION NUMBER: 08/216,081
FILING DATE: 07/637,830
FILING DATE: 07/637,830
FILING DATE: 04-JAN-1991
APPLICATION NUMBER: 07/639,842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: CONTROLLING CELLULAR IMP
TITLE OF INVENTION: CONTROLLING CELLULAR IMP
TITLE OF INVENTION: RESPONSES WITH BETA2 INT
NUMBER OF SEQUENCES: 53
CORRESPONDENCE ADDRESS:
ADDRESSE: Fish & Richardson P.C.
STRET: 225 Franklin Street
CITY: Boston
STATE: MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 44, Application US/08476062A Patent No. 5877275 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 13
US-08-476-062A-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1021
497
                                      541
                                                                                                                 601
                                                                                                                                                                                            661
                                                                                                                                                                                                                                  919
                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        961
                                    ઠે
                                                                    요
                                                                                                             ઠે
                                                                                                                                         셤
                                                                                                                                                                                        È
                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                  .₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                 RINQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1035
                                                                                                                                                                            FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1095
                                                                          RINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                     1021 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
  960
                      916 QLELPVKYAVYMVVTSHGV§TKYLNFTASENTSRVMQHQYQVSNLGQRSPPISLVFLVPV 975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        257 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QNTCMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       94
                                                                                                                                                                                                                              GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
QLELPVKYAVYMVVTSHGVŠTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TDGEKFGDPLGYEDVI PELDREGVIRYVLGFGDAFRSEKSROELNTVASKPPRDHVFQAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NFEALKTIONOLREKIFAIEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GVFLYTSKEKSTFINMTRVØSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FNLDTENAMTFQENARGFGGSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RLQVPVEAVNMSLGLSLAAŤTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FNLDTENAMT FQENARGFGÓSVVQLQGSRVVVGA PQEI VAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                            HETERODIMERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 5808.5;
Pred. No. 0;
8; Mismatches
                                                                                                                                                                                                                                                                                                                                                              PARENT NO. 5424399

PRICANT: ARNAOUT, M. AMIN

TITLE OF INVENTION: HUMAN CR3a/b HETER

NUMBER OF SEQUENCES: 12

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/78,871

FILING DATE: 16-JUN-1993

PRIOR APPLICATION NUMBER: 539,842

FILING DATE: 18-JUN-1990

APPLICATION NUMBER: 212,573

FILING DATE: 28-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 98.6
Matches 1121; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 1152
                                                                                                             976
                                                                                                                                                                                            1036
                                                                                                                                                                                                                                                                       1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              377
                                                                                                                                                                                                                                  1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           437
                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO:2
                                                                                                                                                                                                                                                                                                                               RESULT 12
5424399-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5424399-2
```

ઠ g ò q δ g ò В ò 셤 ò g ઠે g ò ď

1035

855 900 915 960 975

840

```
1019
                                                                                                                                                                                                                                                                                      1034
                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                            959
                                                                                                                                                                                                 915 QLELPVKYAVYTVVSSHEQFTKYLNFSESEEKESHVAMHRYQVNNLGQRDLPVSINFWVP 974
                                                                                                                                       914
                                                                                                                                                                                                                                                                     TLVGKPLLAFRNLRPMLAALAQRYFTASLPFEKNCGADHICQDNLGISFSFPGLKSLLVG
                                                                                                                          960 VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                        1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                   GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                     SNLELNAEVWVWNDGEDSYGTTITFSHPAGLSYRYVAEGQKQGQLRSLHLTCDSAPVG--
                                                                                                        SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                              1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKROYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: M. Amin Arnaout
TITLE OF INVENTION: METHODS FOR IDENTIFYING INTEGRIN
TITLE OF INVENTION: MATHGONISTS
NUMBER OF SEQUENCES: 78
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 58.6%; Score 3446; DB 5; Best Local Similarity 60.5%; Pred. No. 4.9e-278; Matches 683; Conservative 143; Mismatches 297;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
COMPUTER: IBM PS/2 Model 50Z or 55SX
OPERATING SYSTEM: MS-DOS (Version 5.0)
SOFTWARE: WordPerfect (Version 5.1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29,066
R: 00786/267001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US96/01314
FILING DATE: 30-JAN-96
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 14

TCT-US96-01314-44

Sequence 44, Application PC/TUS9601314

GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 08/380,167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 30-JAN-95
ATTORNEY/AGENT INFORMATION:
NAME: JOAN W. Freeman
REGISTRATION NUMBER: 29.066
REFERENCE/DOCKET NUMBER: 0078
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      44:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (617) 542-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (617) 542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STATE: Massachus
COUNTRY: U.S.A.
ZIP: 02110-2804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: 225 F
CITY: Boston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PCT-US96-01314-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                 1095
                                     781
                                                                        797
                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                       g
                                                                                                                                                                                8
                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                              ò
                                   ઠે
                                                                 요
                                                                                                         ઠે
                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN 300
                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20 FNLDTEELTAFRVDSAGFGDSVVQYANSWVVGAPQKITAANQTGGLYQCGYSTGACBPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NFEALKTVONOLREKI FA LEGTOTGSSSSFEHEMSQEGFSAAI TSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 FNLDTENAMTFQENARGFGGSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                 ;
9
                                                                                                                                                                                                                                                                                                                                            Length 1163;
                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                              Ouery Match 58.6%; Score 3446; DB 2; I
Best Local Similarity 60.5%; Pred. No. 4.9e-278;
Matches 683; Conservative 143; Mismatches 297;
                                                                                                                                                                                                                                                                                                                                            Score 3446; DB 2;
Pred. No. 4.9e-278;
                                                                                                             00786/068003
                                                                                   REFERENCE/DOCKET NUMBER: 29,066
REFERENCE/DOCKET NUMBER: 00786
TELECOMMUNICATION INFORMATION:
TELEPAX: 617/542-8906
TELEX: 20016
   FILING DATE: 18-JUN-1990
APPLICATION NUMBER: 07/212,573
FILING DATE: 28-JUN-1988
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                    LENGTH: 1163 amino acida
TYPE: amino acid
TOPOLOGY: linear
                                                                        NAME: Freeman, John W. REGISTRATION NUMBER: 2
                                                                                                                                                            TELEFAX: 617/542-8906
TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARATERISTICS:
                                                                                                                                                                                                                                                                                          MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                            US-08-476-062A-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
```

g

요 ò ద ઠે g ઠે

ઠે g ઠે g ò a

ò

a

ò

요

ઠે

g

ò 8 ò a

ò

K.

```
Sequence 4, Application US/08173497
Patent No. 5437958
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                               TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 1163 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE: protein
                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                              STREET: 233 S. Wa
CITY: Chicago
STATE: Illinois
COUNTRY: USA
ZIP: 60606-6402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                             RESULT 15
US-08-173-497-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-173-497-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S:
Matches 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
            유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     975 VELNQEAVWMDVEVSHPQNPSLRCSSEKIAPPASDFLAHIQKNPVLDCSIAGCLRFRCDV 1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             959
                                             120
                                                           180
                                                                                                              197
                                                                                                                                                                              TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN 300
                                                                                                                                                                                                                                               377
                                                                                                                                                                                                                                                                     GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                                                                                                                                                                                                                                                                                            437
                                                                                                                                                                                                                                                                                                                            556
                                                                                                                                                                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       914
   9
                                                                                                                                               781 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
               61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                       PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF
                                                                                                             LPVSRQECPRQEQDIVFLIDGSGSISSRNFATMMNFVRAVISQFQRPSTQFSLMQFSNKF
                                                                                                                                 RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                          NFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                          GAFLYPPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVQSLVLGAPRYQHTGKAVIFT
                                                                                                                                                                                                                                                                                                                QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               915 QLELPVKYAVYTVVSSHEQFTKYLNFSESEEKESHVAMHRYQVNNLGQRDLPVSINFWVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                            PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                       HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                   PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SGALKSTSCSINHPIPPENSEVTFNITPDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1020
                      20
                                                                                       121
                                                                                                                                    181
                                                                                                                                                        198
                                                                                                                                                                              241
                                                                                                                                                                                                  258
                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                               318
                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                          378
                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                    438
                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                 498
                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                             557
                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                    셤
                                                                                                                                                                                                 업
                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                              ያ ያ
                                                                                                                                                                                                                                                                                                                                                                                                                                                8 G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
ò
                                          ò
                                                                                   ò
                                                                                                         g
                                                                                                                                 ò
                                                                                                                                                     g
                                                                                                                                                                            ઠે
                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                       ď
                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        요
```

```
197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            80 GLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TDGEKFGDPLGYEDVIPELDREGVIRYVLGFGDAFRSEKSRQELNTVASKPPRDHVFQAN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKELVSTIMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20 FNLDTEELTAFRVDSAGFGDSVVQYANSWVVVGAPQKIIAANQIGGLYQCGYSTGACEPI 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     258 TDGKKEGDSLDYKDVIPMADAAGIIRYAIGVGLAFQNRNSWKELNDIASKPSQEHIFKVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | NFEALKTVQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHFTFEEFRRTSNPLSLLASVHQLQGFTYTATAIQNVVHRLFHASYGARRDAIKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . 9
1095 TVLEKYKVHNPTPLIVGSSIGGLLLALITAVLYKVGFFKRQYKEMBE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indela
                                                                                                                                                                                                                                                                                                    Integrin
                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE: Marshall, O'Toole, Gerstein, Murray
STREET: 233 S. Wacker Drive, 6300 Sears Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     al Similarity 60.2%; Pred. No. 4.1e-276; 680; Conservative 149; Mismatches 294;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            58.2%; Score 3423; DB 1; 60.2%; Pred. No. 4.1e-276;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Version #1.
                                                                                                                                                                                                                                                                                                 ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/173,497
FILING DATE:
CLASSIFICATION: 435
ATTORNEY FAGENT INFORMATION:
NAME: NO. 5437958and, Greta E.
REGISTRATION NUMBER: 35,302
REPERBNCE/DOCKET NUMBER: 27866/31363
TELECOMPUNICATION INFORMATION:
TELEFRAN: 312-474-6300
                                                                                                                                                                                                                                          APPLICANT: Gallatin, W. Michael
APPLICANT: Van Der Vieren, Monica
TITLE OF INVENTION: No. 5437958el Human
TITLE OF INVENTION: Subunit
NUMBER OF SEQUENCES: 29
```

```
1079
                                                                                                                                                                                                                                                                                                                                                                                                   1094
                                                                                                                                                                                                                                                                                                                                                   VRLNQTVIWDRPQVIFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                9/9
                                                                                                                                                                                720
                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                 196
                                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                                                                                  974
                                                                                                                                                                                                 736
                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                   959
                               437
                                                480
                                                                               PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF 540
                                                                                               556
                                                                                                                9
                                                                                                                                616
                                                                                                                                                                                                                                                            SNLELNAEVWVWNDGEDSYGTITFSHPAGLSYRYVAEGOKQGQLRSLHLTC--CSAPVG 854
                                                                                                                                                                                                                                                                                                  914
                                                               497
DFDALKDIQNQLKEKIFAIEGTETISSSSFELEMAQEGFSAVFTPDGPVLGAVGSFTWSG 377
                                              HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                         PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                           YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                           SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                         TLVGKPLLAFRNLRPMLAALAQRYFTASLPFEKNCGADHICQDNLGISFSFPGLKSLLVG
                                                                                                                                                                                                                                                  GPREFNUTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                  SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                         855 SQCTWSTSCRINHLIFRGGAQITFLATFDVSPKAVGLDRLLLIANVSSENNIPRTSKTIF
                                                                                                                                                                                                                                                                                                                   OLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMOHOYOVSNLGORSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                            .020 PFFGIQEEFNATLKGNLSPDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                                                                                                                                                                             GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                    378
                                                                438
                                                                                                498
                                                                                                                541
                                                                                                                                 557
                                                                                                                                                                  617
                                                                                                                                                                                 661
                                                                                                                                                                                                                                  737
                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                  797
                                                                                                                                                                                                                                                                                   841
                                                                               481
                                                                                                                                                 601
                                                                                                                                                                                                                 721
                361
                                               421
                                           g
```

Search completed: November 25, 2003, 14:23:13 Job time : 17.5618 secs

### November 25, 2003, 14:12:29   Search line A1837 Seconds   15   Search Line A1837 Seconds   15   Search Line A1837 Seconds   15   Search Line A1837 Seconds   15   Search Line A1831 Search L	Copyright (	GenCore (c) 1993 using	re version 5.1.6 93 - 2003 Compugen Ltd. sw model		4 4 8 4
1	November 25,	2003,	14:12:29 ; Search time 14.9575 (Without alignments) 7310.102 Million cell	conds ates/sec	
Second   S	e: ect score: 58 ence: 1	A NA.R	GFGQ		
1.   283308 seqs, 96166682 residues   283308	table: BLOSUM62 Gapop 10.0,	Gapext	0		
DB seq length: 0  DB seq length: 0  DB seq length: 0  DB seq length: 0  DB seq length: 0  DB seq length: 0  DB seq length: 0  DB seq length: 0  Maximum Match 1004  Lifeting first 45 summaries  The pirst: 3: ppirst: 45 summaries  The pirst: 45 summaries  The pirst: 5: ppirst: 45 summaries  The pirst: 5: ppirst: 5: ppirst: 45 summaries  The pirst: 6: ppirst: 6: ppirst: 6: ppirst: 6: ppirst: 6: ppirst: 7: p	: 283308	96168			
DB seq length: 200000000  DB seq length: 200000000  DES seq length: 2000000000  Listing first 45 nummaries  Listing first 45 nummaries  Listing first 45 nummaries  Dira:  1: Piri:  2: piri:  2: piri:  3: piri:  4: piri:  5: piri:  5: piri:  5: piri:  6: piri:  6: piri:  6: piri:  7: piri:  8: piri:  8: piri:  9: piri:  10: piri:	number of hits				
Second   Minimum Match   Other	DB seq length: DB seq length:	00000			RWHUIB cell surface
### PIR 76:*    PIR 76:*   1	Minimum Maximum Listing	100	* Bummaries		eukocyte inte C;Species: HC C;Date: 31-De
Peed, No. is the number of results predicted by chance to have a nicerion printed, and is derived by analysis of the total score distribution.  **None to the score of the result being printed, and is derived by analysis of the total score distribution.  **Score Much Length DB ID  SCORE Match Length DB ID  SCORE MATCH SCORE FOR INTEGRING ADAPA 1 CORE FOR INTEGRING ADAPA 2 CORE FOR INTEGRING ADAPA 2 CORE FOR INTEGRING ADAPA 3 COR	: PIR_76: 1: Dir1 2: Dir2 3: Dir3				C;Accession: R;Corbi, A.L. J. Biol. Chen A;Title: The B.
Score Query  Query  Query  Query  Score Match Length DB ID  Secore Match DB ID  Secore Match DB ID  Secore Match DB ID  Secore Match DB ID  Secore Match DB ID  Secore Match DB ID  Secore Match DB ID  Secore Match DB ID  Secore Match DB I	No. 16 greate s deriv	of re	esults predicted by chance to the score of the result the total score distribut	a rinted,	A; Accession: A; Molecule t) A; Residues: 1 A; Cross-refe
Score Match DB ID  SGOTE Match Length DB ID  SGSS 99.5 1153 1 RWHU1B  SGSS 99.5 1153 2 SGGSS1  SGGSS 1153 1 RWHU1B  SGGSS 1153 2 SGGSS 1  SGGSS 1153 2 SGGSS 1  SGGSS 1153 2 SGGSS 1  SGGSS 1153 2 SGGSS 1  SGGSS 1153 2 SGGSS 1  SGGSS 1153 2 SGGSS 1  SGGSS 1153 2 SGGSS 1  SGGSS 1153 2 SGGSS 1  SGGSS 1153 2 SGGSS 1  SGGGS 1 SGGS 1  SGGGS 1 SGGS 1  SGGGS 1 SGGGS 1  SGGGS 1 SGGGS 1  SGGGS 1 SGGGS 1  SGGGS 1 SGGGS 1  SGGGS 1 SGGGS 1  SGGGS 1 SGGGS 1  SGGGGS 1 SGGGS 1  SGGGGS 1 SGGGS 1  SGGGGS 1 SGGGGS 1  SGGGGS 1 SGGGGS 1  SGGGGG 1 SGGGGG 1  SGGGGGGGGGG	<b>.</b>		SUMMARIE		A,Note: part R,Arnaout, M J. Cell Biol
\$652 99.5 1153 1 RWHUIB cell surface glyco   1546 59.0   1163 1 RWHUIB   152 2 500551   153 2 500551   153 2 500551   153 2 500551   153 2 500551   153 2 500551   153 2 500551   153 2 500551   153 2 500551   153 2 500551   153 2 500551   153 2 500551   153 2 500551   154 1 179 2 155126   170 1 18.2 1 170 2 145914   170 2 145014   170	Query Score Match	—н-		uo	A, Title: Amir A; Reference
1469 7.9 1153 2 200331 1163 1 2 201331 1163 1 2 201331 1163 1 2 201331 1163 1 2 201331 1163 1 2 201331 1163 1 2 201331 1163 1 2 201331 1163 1 2 201331 1163 1 2 201331 1164 1179 2 2 201331 1164 1179 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	5852 99.5	ì	cell		A; Molecule ty
1527.5 26.0 1163 2 156126 19mphocyte fuction 1140 19.4 1179 2 A53213 integrin alpha-E c 1151 2 A53213 integrin alpha-E c 1163 1 165126 integrin alpha-E c 1167 18.0 1170 2 145914 integrin alpha-1 c 1167 18.0 1170 2 145914 integrin alpha-1 c 1165 17.9 1180 2 A33958 integrin alpha-1 c 1165 17.9 1180 2 A41131 integrin alpha-2 c 1166 11.3 1039 2 A41131 integrin alpha-2 c 1168 1169 1038 2 50646 integrin alpha-9 c 1168 1169 1169 2 A41131 integrin alpha-9 c 1169 1038 2 159649 integrin alpha-9 c 1169 1038 2 155949 integrin alpha-9 c 1169 1039 2 A33561 c 1169 1039 2 A33561 c 1169 1039 2 A33561 c 1169 1039 2 A33561 c 1169 1039 2 A33561 c 1169 1039 2 A33561 c 1169 1039 2 A33610 integrin alpha-6 c 1169 1030 2 A33645 c 1169 103	3469 59.0		cell	o de la	A; Cross-refer
1093.5 1170 2 145213 integrin alpha-1 c 1571 2 145214 integrin alpha-1 c 1671 18.6 1170 2 145214 integrin alpha-1 c 1671 18.0 1170 2 145214 integrin alpha-1 c 1671 18.0 1170 2 145214 integrin alpha-1 c 1672 18.0 1170 2 14412 integrin alpha-1 c integrin alpha-1 c integrin alpha-1 c 1673 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9	1527.5 26.0			e fuction	A;Note: part
1057 18.2 1170 2 145914, Untegrin alpha 2 s 1057 18.0 118.0 118.0 18.0 18.0 18.0 18.0 18	1093.5 18.6			alpha-i	Proc. Natl.
1055 17.9 1180 2 À35854 integrin alpha-1 c 1054 17.9 1181 2 À3398 integrin alpha-2 c 663 10.9 1038 2 \$06046 integrin alpha-4 c 642 10.9 1038 2 \$06046 integrin alpha-4 c 643 10.7 1035 2 158409 integrin alpha-4 c 644.5 10.4 1041 2 77234 alpha-9 c 672.5 9.8 1054 2 772294 alpha-9 integrin alpha-9 c 672.5 9.7 1051 2 À35761 cell surface glyco 675.5 9.6 1053 2 155534 integrin alpha-7 c 675.5 9.4 1053 2 155534 integrin alpha-7 c 675.5 9.1 1044 2 710050 integrin alpha-6 c 675.5 9.1 1044 2 72079 integrin alpha-6 c 675.5 9.0 1073 2 B36429 integrin alpha-6 c 675.5 9.0 1073 2 A47021 integrin alpha-6 c 675.5 8.9 1049 2 A27042 integrin alpha-6 c 675.5 8.9 1041 2 A47042 integrin alpha-6 c 675.5 8.9 1044 2 A47042 integrin alpha-6 c 675.6 8.9 1044 2 A47042 integrin alpha-6 c 675.7 8.8 1044 2 S16516 integrin alpha-6 c 675.7 8.8 1044 2 S16516 integrin alpha-6 c	1071 18.2			alpha 2 s tein homo	A;Title: The A;Reference
663 11.3 1039 2 A41131 lymphocyte-Peyer's 642 10.9 1038 2 506046 integrin alpha-4 c 610 10.7 1035 2 158409 integrin alpha-9 c integrin alpha-9 c integrin alpha-9 c integrin alpha-9 c integrin alpha-9 c integrin alpha-9 c integrin alpha-9 c integrin alpha-9 c integrin alpha-9 c integrin alpha-9 c integrin alpha-9 c 611 sufface glyco 567.5 9.6 1053 2 15553	1055 17.9 1054 17.9			alpha-1 c alpha-2 c	A, Accession: A, Molecule ty
630 10.7 1035 2 158409 integrin alpha-9 c 614.5 10.4 1041 2 1731437 integrin alpha cha 572.5 9.7 1051 2 735761 cell surface glyco 567.5 9.6 1053 2 155534 cell surface glyco 567.5 9.6 1053 2 155534 integrin alpha-5 cell surface 555.5 9.4 1053 2 154250 integrin alpha-V cell surface 535 9.1 1044 2 170050 integrin alpha-V cell surface 536 9.1 1072 2 738457 integrin alpha-V cell surface 532 9.0 1073 2 1836459 integrin alpha-6 cell surface 532 9.0 1073 2 1836429 integrin alpha-6 cell surface 536 8.9 1051 2 744021 integrin alpha-6 cell surface 525 8.9 1091 2 741541 integrin alpha-6 cell surface 517 8.8 1064 2 1836516 integrin alpha-6 cell surface 518 1064 2 1836516 integrin alpha-6 cell surface 519 1064 2 1836516 integrin alpha-6 cell surface 510 1064 2 1836516 integrin alpha-6	663 11.3			e-Peyer's	A;Residues: A:Cross-refe
573.5 9.8 1054 2 1373.7 allegain alpha cua 572.5 9.8 1054 2 137294 alpha integrin - 672.5 9.8 1053 2 155534 cell surface glyco 557.5 9.6 1053 2 155534 vi.A-3 alpha subuni 555.5 9.4 1053 2 155534 vi.A-3 alpha subuni 555.5 9.1 1044 2 140050 integrin alpha-V c integrin alpha-V c 1049 2 142079 integrin alpha-V c 1049 2 142079 integrin alpha-C 532 9.0 1073 2 1836429 integrin alpha-6 c 1051 2 144021 integrin alpha-6 c 1051 2 144021 integrin alpha-6 c 1052 5.5 8.9 1091 2 144543 integrin alpha-6 c 1052 5.5 8.9 1044 2 151616 integrin alpha-6 c 1054 2 16516 integrin alpha-6 c 1054 2 16516 integrin alpha-6 c 1054 2 16516 integrin alpha-6 c 1055 2 16516 integrin alpha-6 c 1055 2 16516 integrin alpha-8 c 1055 2 16516 integrin alpha-8 c 1055 2 16516 integrin alpha-8 c 1055 2 16516 integrin alpha-8 c 1055 2 16516 integrin alpha-8 c 1055 2 1655 2	630 10.7			alpha-9 c	R, Arnaout, M
572.5 9.7 1051 2 N35761 cell surface glyco 557.5 9.6 1053 2 I55534 VLA-3 alpha subuni 555.5 9.4 1053 2 I55534 VLA-3 alpha subuni 555.5 9.4 1053 2 S44250 integrin alpha-5 c integrin alpha-5 c integrin alpha-6 c 534.5 9.1 1074 2 N20709 integrin alpha-6 c 532 9.0 1073 2 N34457 integrin alpha-6 c 532 9.0 1073 2 N37079 integrin alpha-6 c 530.5 9.0 1051 2 A40021 integrin alpha-6 c 526.5 8.9 1091 2 A41543 integrin alpha-6 c 1051 2 A40021 integrin alpha-6 c 1051 2 N40021 integrin alpha-6 c 1051 2 N41543 integrin alpha-6 c 1051 2 N41543 integrin alpha-6 c 1051 2 N41543 integrin alpha-6 c 1051 2 N41543 integrin alpha-6 c 1051 2 N41543 integrin alpha-6 c 1051 2 N41543 integrin alpha-6 c 1051 2 N41543 integrin alpha-6 c 1051 2 N41543 integrin alpha-6 c 1051 2 N41543 integrin alpha-8 c 1051 2 N41543 integrin alpha-9 c 1051 2 N	579.5 9.8			tegrin -	A; Title: Mol
555.5 9.4 1053 2 844250 integrin alpha-5 c 546.5 9.3 1034 2 A36108 integrin alpha-V c 535 9.1 1044 2 710050 integrin alpha-V c 1072 2 A384.5 9.1 1072 2 A38457 integrin alpha-6 c 532 9.0 1049 2 A27079 integrin alpha-6 c 530.5 9.0 1073 2 B36429 integrin alpha-6 c 530.5 9.0 1051 2 A40021 integrin alpha-3 c 525.5 8.9 1091 2 A41543 integrin alpha-5 c 525.5 8.9 1094 2 S36516 integrin alpha-6 c integrin alpha-6 c integrin alpha-6 c 530 517 8.8 1044 2 S36516 integrin alpha-8 c 517 8.8 1044 2 S36516 integrin alpha-8 c	572.5 9.7 567.5 9.6			ace glyco ha subuni	A; Reference A; Accession:
535 9.3 1034 2 735100 integrin alpha-v c 11044 2 710050 integrin alpha-v c 134.5 9.1 1072 2 738457 integrin alpha-v c 170050 1049 2 737079 integrin alpha-v c 170050 1049 2 737079 integrin alpha-v c 170050 1051 2 740021 integrin alpha-s c 170050 1051 2 74021 integrin alpha-s c 170050 1051 2 741543 integrin alpha-s c 170050 1044 2 516516 integrin alpha-e c 170050 1044 2 516516 integrin alpha-e c 170050 1045	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			alpha-5 c	A; Molecule t
534.5 9.1 1072 2 A38457 integrin alpha-6 c 532 9.0 1043 2 A27079 fibronectin recept 532 9.0 1073 2 B36429 integrin alpha-6 c 530.5 9.0 1051 2 A40021 integrin alpha-3 c 526 8.9 1091 2 A41543 integrin alpha-5 c 525.5 8.9 1094 2 S16516 integrin alpha-6 c	535 9.1		integrin integrin		A; Cross-refe
532 9.0 1073 2 B36429 integrin alpha-6 c 530.5 9.0 1051 2 A40021 integrin alpha-3 c 526 8.9 1048 2 A27421 integrin alpha-5 c 525.5 8.9 1091 2 A41543 integrin alpha-6 c 517 8.8 1044 2 S16516 integrin alpha-8 c	534.5 9.1 532 9.0			റ	R;Hickstein, Proc. Natl.
530.5 9.0 1051 2 A40021 Integrin alpha-3 c 525.5 8.9 1048 2 A71543 integrin alpha-6 c 517 8.8 1044 2 S16516 integrin alpha-8 c	532 9.0			alpha-6 c	A, Title: cDN
525.5 8.9 1091 2 A41543 integrin alpha-6 c 517 8.8 1044 2 S16516 integrin alpha-8 c	526 8.9		integrin		A; Reference A; Accession:
The second of th	525.5 8.9 517 8.8		integrin integrin		A;Residues:

integrin alpha-2b		integrin alpha-7	alpha-7 integrin	glycoprotein	leukocyte adhesion	integrin alpha cha	FS4F2.1 protein -	integrin alpha v c	hypothetic	integrin alpha cha	integrin a	glycoprotein	integrin alpha cha	glycoprotein	integrin alpha-1
A34269	A29637	JC5950	161186	A60163	B30892	S38783	S44824	S60571	S28277	T09403	T09433	136916	T18523	136917	A55348
~	ď	7	7	7	7	7	7	~	7	~	~	7	7	7	7
1039	1394	1137	1135	1037	126	1106	1226	1045	1139	1115	1115	764	1086	604	272
8.4	8.4	8.3	8 .3	89 .3	8.3	8.0	7.9	7.7	7.6	7.2	7.2	9.9	5.3	5.1	4.9
495.5	494	489	488	486.5	486	470	462	453	444.5	426	421.5	391	309.5	299	286.5
30	31	32	33	34	32	36	37	38	39	40	41	42	43	44	45

## ALIGNMENTS

	RESULT 1 RWHU1B
	cell surface glycoprotein CD11b precursor [validated] - human N;Alternate names: complement receptor type 3 alpha chain; leukocyte adhesion protein eukocyte integrin alpha chain; neutrophil adherence receptor alphaM chain
	C.joperlas: now. Sapieus Naco. C.joperlas: now. C.joperlas: now. C.joperlas: now. C.joperlas: now. C.joperlas: now. C.joperlas: now. C.joperlas: now. C.joperlas: now. C.joperlas: now. C.joperlas: now. National
	J. Biol. Chem. 203, 12*03-12*11, 1388 ATILLE: The human leukocyte adhesion glycoprotein Mac-1 (complement receptor type 3, R
	A; Reference number: A31108; MUID:88315033; PMID:2457584 A:Accession: A31108
	A,Molecule type: mRNA A,Residues: 1-1153 <cor></cor>
	A;Cross-references: GB:J03925; NID:G187284; PIDN:AAA59544.1; PID:g307148 A;Note: part of this sequence was confirmed by protein sequencing R;Arnsout, M.A.; Gupta, S.K.; Pierce, M.W.; Tenen, D.G.
	J. Cell Biol. 106, 2153-2158, 1988 A;Title: Amino acid sequence of the alpha subunit of human leukocyte adhesion receptor
	A;Accession: A28915
	A;Molecule type: mRNA A;Residues: 1-499,501-965,'P',967-1153 <arn></arn>
	A;Cross-references: GB:M18044; GB:J03270; GB:M19664; GB:X07421; NID:g186935; PIDN:AAA: A;Note: the authors translated the codon TAC for residue 1129 as Thr
	A;Note: part of this sequence, including the amino end of the mature protein, was confidently, $C(s)$ . Arraphit M A
	Proc. Natl. Acad. Sci. U.S.A. 88, 10525-10529, 1991 A:Title: The promoter of the CD11b gene directs myeloid-specific and developmentally the components of the CD11b gene directs myeloid-specific and developmentally the components of the CD11b gene directs myeloid-specific and developmentally the components of the CD11b gene directs myeloid-specific and developmentally the components of the components of the CD11b gene directs myeloid-specific and developmentally the components of the component
	A;Reference number: A41600; MUID:92073318; PMID:1683702 A:Accession: A41600
,	A; Molecule type: DNA A: Desidine: 1-9 < SHE.
	A. Cross-references: GB:M76724; NID:g180018; PIDN:AAA58410.1; PID:g553215 B. Arraout M. A. Remold-O'Donnell, E. Pierce, M. W. Harris, P. Tenen, D. G.
	Proc. Natl. Acad. Sci. U.S.A. 85, 2776-2780, 1988
	A;TITLE: MOLECTIAR CLONING OF THE ALDNA-BUDUNIT OF NUMBER AND GUINEB DIG LEUXOCYCE BUNE A;Reference number: A94193; MUID:88190151; PMID:2833753
	A; Accession: AJUBYZ A; Molecule type: mRNA
	R;Hickstein, D.D.; Hickey, M.J.; Ozols, J.; Baker, D.M.; Back, A.L.; Roth, G.J. Proc. Natl. Acad. Sci. U.S.A. 86, 257-261, 1989
	A, Title: cDNA sequence for the alpham subunit of the human neutrophil adherence recept A; Reference number: A32218; MUID:89098893; PMID:2563162
	A;Accession: A32218 A;Molecule type: mRNA
	A;Residues: 9-1153 <hic> A;Cross-references: GB:J04145; NID:g189068; PIDN:AAA59903.1; PID:g386975</hic>

```
chain reveals homology with th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                916
                                                                                                                                                                                                                                                                                                                                                                                                                         99
                                                                                                                                                                                                                                                                                                                                                                                                                                                             9/9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               856
                                                                                                                                                                                                                                                                                                                                                                              919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              796
                                                                                          420
                                                                                                                              436
                                                                                                                                                                       480
                                                                                                                                                                                                             496
                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                               556
                                                                                                                                                                                                                                                                                                                                       600
          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            leukocyte surface glycoprotein Mac-1 alpha chain precursor - mouse N;Alternate names: complement-3 receptor alpha chain C;Species: Mus musculus (house mouse) C;Date: 30-Sep-1989 #sequence_revision 30-Sep-1991 #text_change 22-Oct-1999 R;Pytela, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              977 RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QLELPVKYAVYWVVTSHGVSTKYLNFTASENTSRVWQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLFGGGAFVRSQTET
                                                                                                                                                                                                                                                                                                                                                               557 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                              GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          941 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901 QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMOHOYOVSNLGORSLPISLVFLVPV
                           317 NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                               GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                         QNTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                          HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                       PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GPREFNUTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                      481 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                           A;Residues: 1-1153 <PYT>
A;Cross-references: EMBL:X07640; NID:952982; PIDN:CAA10479.1; PID:952983
A;Note: the authors translated the codon CAC for residue 569 as Gln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KVBPFEVDNPLPLIVGSSVGGLLLALITAALYKLGFFKROYKDMMSEGGPPGAEPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RiPytela, R. EMBO J. 7, 1371-1378, 1988
Afritle: Amino acid sequence of the murine Mac-1 alpha c
A;Reference number: S00551; MUID:88312584; PMID:3044779
A;Accession: S00551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         196
                                                                                                                                                                                                             437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1021
                                                                                                                                                                                                                                                                                                 497
                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                917
            301
                                                                                            361
                                                                                                                                  377
                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                         ď
                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                          셤
                                                                                   ઠે
                                                                                                                          셤
                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                        ò
A:Note: part of this sequence was confirmed by protein sequencing

B:Filmening J.C.; Pabl. 94.1, Gonzalez, D.A.; Smith, T.F.; Tenen, D.G.

A:Immunol. 150, 480-191, 199.

A:Immunol. 150, 480-191, 199.

A:Immunol. 150, 480-191, 199.

A:Settesin markers and sezse; MUD:9312349; PMID:8419480

A:Settesin markers and sezse; MUD:9312349; PMID:8419480

A:Settesin markers and sezse; MUD:9312349; PMID:8419480

A:Recenter markers and sezse; MUD:9312349; PMID:8419480

A:Recenter markers and sezse; MUD:9312349; PMID:84194211; PID:9663049

A:Recenter sequence extracted from NGB backbone (NCGB PILISE); M.A.

B:A:Note: sequence extracted from NGB backbone (NCGB PILISE); M.A.

B:A:Note: sequence extracted from NGB backbone (NCGB PILISE); M.A.

B:A:Note: sequence extracted from NGB backbone (NCGB PILISE); M.A.

A:A:Note: sequence extracted from NGB backbone (NCGB PILISE); M.A.

A:A:Note: sequence extracted from NGB 137076671; PMID:353202

A:A:Note: sequence extracted from NGB 137076671; PMID:353202

A:A:Retain and sequence of human leukocyte glycoprotein Mol: conservation across spansing and sequence of human leukocyte glycoprotein Mol: conservation across spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing spansing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        77 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RIHFTFKEFQNNPNPRSLİKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 99.5%; Score 5852; DB 1; Length 1153; Best Local Similarity 99.2%; Pred. No. 0; Matches 1128; Conservative 7; Mismatches 2; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              $ B
```

```
1020
                                                                                                                                                                                                                                                                                                                                     1036
                                                                                                                                             928
                                                                                                                                                                          900
                                                                                                                                                                                                                                         960
                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                g
                                                                        g
                                                                                                            à
                                                                                                                                         셤
                                                                                                                                                                          ò
                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                            g
R;Sastre, L.; Roman, J.M.; Teplow, D.B.; Dreyer, W.J.; Gee, C.E.; Larson, R.S.; Roberts, Proc. Nati. Acad. Sci. U.S.A. 83, 5644-5648, 1986
A;Title: A partial genomic DNA clone for the alpha subunit of the mouse complement recept A;Reference number: I59078; MUID:86287312; PMID:2942940
                                                                                                                                                                                                      C.Superfamily: cell surface glycoprotein CD11b; von Willebrand factor type A repeat home C; Superfamily: cell adhesion; glycoprotein; transmembrane protein C: Keywords: cell adhesion; glycoprotein; transmembrane protein F;1-16/Domain: signal sequence #status predicted <SIG-F;17-1153/Product: leukocyte surface glycoprotein Mac-1 alpha chain #status experimental F;148-318/Domain: von Willebrand factor type A repeat homology <WA2>
F;1106-1129/Domain: transmembrane #status predicted <TMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TLVGEPLRSFGNLRPVLAMDAQRFFTAMFPFEKNCGNDSICODDLSITMSAMGLDTLVVG 795
                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             615
                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                              16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YDLALDPVRSRIRAFFDETKNNTRRRTQVFGLMQKCETLKLILPDCVDDSVSPIILRLNY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NFEALKTIONOLREKIFAIEGTOTGSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17 FNLDTEHPWTFQENAKGFGQNVVQLGGTSVVVAAAPQEAKAVNQTGALYQCDYSTSRCHPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                 RLOVPVEAVNMSLGLSLAATITSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRGORARWQCDAVLYGEQG@PWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRG-RARWQCEALLHGDQGHPWGRFGAALTVLGDVNGDKLTDVAIGAPGEQENQGAVYIF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PVLRVKAIMEFNPREVARNÝFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PVLRLEATMEFSPKKVARSVFACQEQVLKNKDAGEVRVCLRVRKNTKDRLREGDIQSTVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QNTGMWESNANVKGTQIGAY FGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                    FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                             Cross-references: GB:M14293; NID g198993; PIDN:AAA39484.1; PID:G554193
                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                      Length 1153;
                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                    Query Match
75.8%; Score 4460; DB 2;
Best Local Similarity 73.8%; pred. No. 2.2e-303;
Matches 840; Conservative 146; Mismatches 150;
                                                                                                              from GB/EMBL/DDBJ
                                                                                                         A,Status: preliminary; translated i
A,Status: preliminary; translated i
A,Rolecule type: DNA
A,FCOSS-references: GB:M14293; NID:
C,Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             919
                                                                                                                                                                                           A; Gene: Mac-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                             음
                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
```

-

```
Ajgene: GDB:ITGAX; CD11C
A;Gene: GDB:I19758; OMIM:151510
A;Cross-references: GDB:119758; OMIM:151510
A;Cross-references: GDB:119758; OMIM:151510
A;Map position: 16p1.2-16p1.2
C;Superfamil: 16p1.2-16p1.2
C;Keywords: calcium; cell adhesion; glycoprotein; heterodimer; magnesium; tandem repea C;Keywords: calcium; cell adhesion; glycoprotein; heterodimer; magnesium; tandem repea C;Keywords: calcium; cell adhesion; glycoprotein CD11C #status predicted <MAT>
F;20-1103/Domain: extracellular #status predicted <MXT>
F;149-319/Domain: von Willebrand factor type A repeat homology <WA4>
F;108-1133/Domain: transmembrane #status predicted <IMM>
F;118-1163/Domain: intracellular #status predicted <IMM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM>
F;118-1163/Domain: intracellular #status predicted <INM
F;118-1163/Domain: intracellular #status 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            molecul
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of a leukocy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Accession: S00864
A; Molecule type: mRNA
A; Residues: 1-755, 'L', 757-1163 < CO3 >
A; Residues: 1-755, 'L', 757-1163 < CO3 >
A; Cross-references: GB: M81695; EMBL: Y00093; NID: g487829; PIDN: AAA59180.1; PID: g487830
A; Note: part of this sequence was confirmed by protein sequencing
C; Comment: A common beta chain (CD18) forms a heterodimer with CD11b to form Mac-1 on C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      reference A35543 includes the carboxyl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the leukocyte p150,95
     839
                                                                                                          855
                                                                                                                                                                                                                                                                                                                                           915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cell surface glycoprotein CD11c precursor - human
NyAlternate names: leukocyte adhesion receptor p150,95 alpha chain
C;Species: Homo sapiens (man)
C;Accession: A35584; A35543; S00864
R;Corbi, A.L.; Garcia-Aguilar, J.; Springer, T.A.
J. Biol. Chem. 265, 12750-12751, 1990
A;Reference number: A36584
A;Contents: erratum
A;Accession: A36584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA
A; Molecule type: DNA
A; Molecule type: DNA
A; Molecule type: DNA
A; Moster this revision to the sequence from reference A35543 includes the car
A; Note: this revision to the sequence from reference A35543 includes the car
B; Corbi, A.L.; Garcia-Aguilar, J.; Springer, T.A.
J. Biol. Chem. 265, 2782-2788, 1990
A; Title: Genomic structure of an integrin alpha subunit, the leukocyte pl50
A; Reference number: A35543, MUID:90153906; PMID:2303426
A; Reference pumber: A35543, MUID:90153906; PMID:2303426
A; Redecule type: DNA
A; Residues: 1-834 < COS
A; Note: this sequence has been revised in reference A36584
R; Corbi, A.L.; Miller, L.J.; O'Connor, K.; Larson, R.S.; Springer, T.A.
EMBO J: 6, 4023-4028, 1987
A; Title: CDNA cloning and complete primary structure of the alpha subunit or
A; Reference number: S00864; MUID:88166645; PMID:3327687
                                                                                                                                                                                                                                                                                            GHGALKSTTWNINHPIFPANSEVTFNVTFDVDSHASFGNKLLLKAIVASENNMSRTHKTK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FQLELPVKYAIYMIVTSDESSIRYLNFTASEMTSKVIQHQYQFNNLGQRSLPVSVVFWIP
GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRL-ACESASSTE
                                                                       796 GPQDFNMSVTLRNDGEDSYGTQVTVYYPSGLSYRKDSASQNPLTXKPWFVKPAESSSSSE
                                                                                                                                                                                                                                840 VSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                           PQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the alpha subunit
```

```
VRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              840
                                                                                180
                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                    556
                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                              616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9/9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           914
                                                                                                                                              197
                                                                                                                                                                                        257
                                                                                                                                                                                                             TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                         TOGKKEGDSLDYKDVIPMADAAGIIRYAIGVGLAFQNRNSWKELNDIASKPSQEHIFKVE 317
                                                                                                                                                                                                                                                      NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                          377
                                                                                                                                                                                                                                                                                                                   437
                                                                                                                                                                                                                                                                                                                                                           497
                                         9
                                                            79
                                                                                                                                                                    RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                              DFDALKDIQNQLKEKIFAIEGTETTSSSFELEMAQEGFSAVFTPDGPVLGAVGSFTWGG
                                                                                                                                                                                                                                                                                              GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                            GAFLYPPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVQSLVLGAPRYQHTGKAVIFT
                                                                                                                                                                                                                                                                                                                                                                                 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                           677 LDLALDPGRLSPRATFQETKNRSLSRVRVLGLKAHCENFNLLLFSCVEDSVTPITLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GPREFNVTVTVRNDGEDSYRTOVTFFFPLDLSYRKVSTLONORSORSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEGQKQGQLRSLHLTCDSAPVG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTFF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PFFGIQEEFNATLKGNLS PDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                       138 LPVSRQECPRQEQDIVFLIDGSGSISSRNFATMMFVRAVISQFQRPSTQFSLMQFSNKF
                                                                                                                                                                                                                                                                                                                                         QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                    HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                         FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                       Gaps
                       9
  Length 1163;
                    IndelB
 Score 3469; DB 1; I
Pred. No. 5e-234;
; Mismatches 293;
 sch
al Similarity 60.9%; P:
688; Conservative 142;
Query Match
Best Local S
Matches 688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      617
                                                             20
                                                                                                                                                                                                                                                                                                                  378
                                                                                                                                                                                                                                                                                                                                                             438
                                                                                                                                                                                                                                                                                                                                                                                                    498
                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                               557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          960
                                                                                   61
                                                                                                    90
                                                                                                                            121
                                                                                                                                                                                                                                  258
                                                                                                                                                                                                                                                     3,01
                                                                                                                                                                                                                                                                           318
                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                        198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                             241
                                                                                                 셤
                                                                                                                                         엄
                                                                                                                                                                                 8
                                                                                                                                                                                                           상
음
                                                                                                                                                                                                                                                                    8 8
                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                          중 &
                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                            중 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                         ò
                                                                                  ઠે
                                                                                                                        ઠે
                                                                                                                                                               ò
                                                                                                                                                                                                                                              8
```

```
A Gene: GDB:ITGAL, CD11A
A;Cross-references: GDB:119757; OMIM:153370
A;Mcross-references: GDB:119757; OMIM:153370
A;Mcross-references: GDB:119757; OMIM:153370
A;Map position: 16p11.2-16p11.2
C;Superfamily: cell surface glycoprotein CD11b; von Willebrand factor type A repeat hr C;Keywords: cell adhesion, cytoskeleton; glycoprotein; heterodimer; surface antigen; if p:1-25/Domain: signal sequence #status predicter 
F;1-25/Domain: signal sequence #status predicter of ypercoprotein LFA-1 alpha chain #status predicter F;154-317/Domain: von Willebrand factor type A repeat homology <VWA2>
                                                                                                                                                                                                                                                       cell surface glycoprotein CD11a precursor - human
NyAlternate names: leukocyte adhesion glycoprotein LFA-1 alpha chain; leukocyte funct:
C;Species: Homo sapiens (man)
C;Apecies: Breb-1990 #sequence_revision 28-Feb-1990 #text_change 20-Aug-1999
C;Accession: S03308; A47488; A47565; A48759; S36044
R;Larson, R.S.; Corbi, A.L.; Berman, L.; Springer, T.
J. Cell Biol. 108, 703-712, 1989
A;Title: Primary structure of the leukocyte function-associated molecule-1 alpha subun A;Reference number: S03308; MUID:89139587; PMID:2537322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CD11a)
37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                59 PIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLR--- 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LQGRPGFQECIKG----NVDLVFLFDGSMSLQPDEFQKILDFMKDVMKKLSNTSYQFAAV 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -QQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLM 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: mRNA
A; Residues: 1-1170 «LLAR»
A; Cross-references: EMBL: Y00796; NID:g31421; PIDN:CAA68747.1; PID:g31422
A; Cross-references: EMBL: Y00796; NID:g31421; PIDN:CAA68747.1; PID:g31422
A; Note: part of this sequence was confirmed by protein sequencing
R; Cornwell, R.D.; Gollahon, K.A.; Hickstein, D.D.
Proc. Natl. Acad. Sci. U.S.A. 90, 4221-4225, 1993
A; Title: Description of the leukocyte function-associated antigen 1 (LFA-1-A; Reference number: A47458; MUID:93248261; PMID:8097887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26 YNLDVRGARSFSPPRAGRHFGYRVLQV-GNGVIVGAPGE---GNSTGSLYQCQSGTGHCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 FNLDTENAMIFQ--ENARGFGOSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSIGSCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A, Cross-references: EMBL: Z22804; NID: 9311405; PIDN: CAA80461.1; PID: 9311406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 26.2%; Score 1543.5; DB 2; Length 1170; Best Local Similarity 34.3%; Pred. No. 2.8e-99; Matches 403; Conservative 210; Mismatches 460; Indels 101;
                                                                           TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                      A; Molecule type: DNA
A; Residues: 1-20 <NUE>
                           1035
                                                                             1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          116
                                                                                                                                  1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                              윱
                                                                  ઠે
                                                                                                                          g
```

molecule-1 alpha-subunit

C;Species: Mus musculus (house mouse)
C;Date: 26-Jul-1996 #sequence\_revision 26-Jul-1996 #text\_change 20-Aug-1999
C;Date: 26-Jul-1996 #sequence\_revision 26-Jul-1996 #text\_change 20-Aug-1999
C;Accession: 156126
C;Accession: 156126
A;Reference number: 156126; MUID:91268576; PMID:2051027
A;Reference number: 156126
A;Reference number: 156126
A;Retus: preliminary; translated from GB/EMBL/DDBJ
A;Rocession: 156126
A;Readus: 1-1163 - RES-A;Res-A;Re

A repeat hc

type

A,Gene: LFA-1 C,Superfamily: cell surface glycoprotein CD11b; von Willebrand F,151-315/Domain: von Willebrand factor type A repeat homology

Ł.

```
429
                                                                                                                                                                                                                                                                                    647
                                                                                354
                                                                                                                                                             IGLVAMFR -- ONTGMWESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQT 470
                                                                                                                                                                                   489
                                                                                                                                                                                                                                                                                                                           707
                                                                                                                                                                                                                                                                                                                                                                  757
                                                                                                                                                                                                                                                                                                                                                                                                           817
                                                   QFSTSYKTBFDFSDYVKWKDPDALLKHVKHMLLLTNTFGAINYVATEVFREELGARPDAT
                                                                                           AS-SMFSLCSSLSISFNSSKHFHLYGSNASL-AQVVMKVDVVYEKQMLYLYVLSGIGGLL
QYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAF
                                      KILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRD
                                                                              HVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVG
                                                                                                                                    545 LEE--QGAVYIFNGRHG-GLSPQPSQRIEGTQVLSGIQWFGRSIHGVKDLEGDGLADVAV
                                                                                                                                                                                                                                                                                                                                        TSRVMQHQYQV---SNLGQRSLP-ISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTK-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -ERLPSHSD--FLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLL
                                                                                                                    SYDWAGGUF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQH
                                                                                                                                                                                                    RGGOVSVCPLPRGQRARWQCDAV--LYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                            GEEDNRGAVYLFHGTSGSGİSPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                                                   GAOGHVLLLRSOPVLRVKA IMEFNPREVARNVFECNDOVV-KGKEAGEVRVCLHVQKSTR
                                                                                                                                                                                                                                                                                                                          DRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCI
                                                                                                                                                                                                                                                                                                                                                                  EDPVSPIVLRINFSL --- VGTPLS -- AFGN --- -- LRPVLAEDAQRLFTALFPFEKNCGN
                                                                                                                                                                                                                                                                                                                                                                                                          DNICODDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                 TLONORSORSWRLACES - - ASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ML---KPHSQIPVSCEELPEESRLLSRAL---SCNVSSPIFKAGHSVALQMMFNTLVNSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LGNKLLLKANVTSENN - - - MPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LLALITAALYKLGFFKRQYKDMMSEG-GPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1103
                    197
                                                            257
                                                                             295
                                                                                                  310
                                                                                                                      355
                                                                                                                                        370
                                                                                                                                                             413
                                                                                                                                                                                130
                                                                                                                                                                                                    171
                                                                                                                                                                                                                       490
                                                                                                                                                                                                                                            529
                                                                                                                                                                                                                                                                                    589
                                                                                                                                                                                                                                                                                                       602
                                                                                                                                                                                                                                                                                                                           648
                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                 7.08
                                                                                                                                                                                                                                                                                                                                                                                      719
                                                                                                                                                                                                                                                                                                                                                                                                          758
                                                                                                                                                                                                                                                                                                                                                                                                                             774
                                                                                                                                                                                                                                                                                                                                                                                                                                                 818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1104
               g
                                                                       õ
                                                                                           음 상 음
                                                                                                                                                     8 6 8 6
                                                                                                                                                                                                                                      6 6 6 6 6 6
                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                      õ
                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                       8 6
8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

```
36;
                                                                                                                                                    179
                                                                                                                                                                            198
                                                                                                                                                                                                                                                     296
                                                                                                                                                                                                                                                                              309
                                                                                                                                                                                                                                                                                                      356
                                                                                                                                                                                                                                                                                                                     414
                                                                                                                                                                                                                                                                                                                                                                                429
                                                                                                                                                                                                                                                                                                                                                                                                        472
                                                                                                                                                                                                                                                                                                                                                                                                                                489
                                                                                                                                                                                                                                                                                                                                                                                                                                                         532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    779
                                                  59
                                                                           79
                                                                                                   60 IRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQ
                                                                                                                                                                    199 CRIEFIFLDYVKQNKNPDVLLGSVQPMFLLTNTFRAINYVVAHVFKEESGARPDAIKVLV
                                                                                                                                                                                                                                                                     259 IITDGEASDKGNISAAHD-----ITRYIIGIGKHFVSVQKQKTLHIFASEPVEEFV
                                                                                                                                                                                                                                                                                                                                                                      24 YNLDTRPTQSFLAQAGRHFGYQVLQIEDG-VVVGAPGE---GDNTGGLYHCRTSSEFCQP
                                                                                                                 80 VSLH-GSNHTSKYLGWTLATDAAKGSLLACDPGLSRTCDQNTYLSGLCYLFPQSLGPML
                                                                                                                                                    KFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEE
                                                                                                                                                                                                                                                                                                                                                       DWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQHIG
                                                                                                                                                                                                                                                                                                                                                                                                       LVAMFR -- ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                         GOVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAG-EVRVCLHVQKSTRDRLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 FNLDTENAMTFQENA-RGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEP
                                                                                                                                                                                                   180 FRIHFTFKEF-ONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILF
                                                                                                                                                                                                                                                    LLTDGEKF--GDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHV
                                                                                                                                                                                                                                                                                                      297 FQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SPIVLRLNFSLV---GTPLSAFGN-LRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSI
26.0%; Score 1527.5; DB 2; Length 1163; larity 34.1%; Pred. No. 3.6e-98; Conservative 217; Mismatches 463; Indels 89;
Query Match
Best Local Similarity
Matches 398; Conserva<sup>©</sup>
                                                                                                                                                                                                                                                    239
                                                                                                                                                                                                                                                                                                                                                       357
                                                                                                                                                                                                                                                                                                                                                                              370
                                                                                                                                                                                                                                                                                                                                                                                                        415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         533
                                                                                                                                                                                                                                                                                                                                                                                                                                                       473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           712
                                                                         셤
                                                                                                 ઠે
                                                                                                                         g
                                                                                                                                                                     셤
                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                    6 B 6
                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                  ઠ
                                                                                                                                                   ઠે
                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
```

lymphocyte fuction-associated molecule-1-alpha - mouse

TO THE STAN OF THE	Db 698 NGVNNYRLCPEI'S SYTTAREBGILINT   1   1   1   1   1   1   1   1   1	A45226 integrin alpha-1 chain - human (fragment) C;Species: Homo sapiens (man) C;Species: Homo sapiens (man) C;Date: 30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change 31-Dec-2000 C;Date: 30-Apr-1993 #sequence_revision 0
OY 768 TESEMSLDCLVVGGPREFNYTVTVRNDGEDSYRTQVTFFPLDLSYRKVSTLQN 821  Db 780 SSPARSGPLELMSSASLAVEWTLSNDGEDSYRTQVTFFPLDLSYRKVSTLQN 821  0Y 822 QRSQRSWRLACESASSTEVSGAL-KSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKL 880  183PHSRMPVSCELTEGSSLLTKTLKCNVSSPIFKAGGEVSLQVMFNTLLNSSWEDFV 887  0Y 881 LLKANVTSEN-NMPRTNKTEFOLELPVKYAVYMVYTSHGVSTKYLNFTASENTSRVMOHQ 939  1888 ELNGTVHCENENSSLOEDNSAATHIPVLYPVNILTKEQENSLLYSFTPKGFRTQQVGHV 947  0Y 940 YQVSNLGQRSLPISLVFLVPVRLNOYVINDRPQVTFSENLSSTCHTKE-RLP 990  1	integrin alpha-E chain - human C;59cctes; Homo aspiens (man) C;54cces; Homo aspiens (man) C;54cces; Homo aspiens (man) C;54cces; Homo aspiens (man) C;54cces; Homo aspiens (man) C;54cces; Homo aspiens (man) C;54cces; Homo aspiens (man) T;51cces; Hom	OY 120 KFPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQL164  175 RORRALEKEEEEDKEEEEDEEEEAGTEIAILLDGSGSIDPPDFQRAKDFISNWMRNFYE 234  OY 165 KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFN 224  CY 165 KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFN 224  CAS INGARKNAFKILFLTDGSCPOWASLARVQNITQVGSVTKTASAMQHVLDSIFT 294  OY 225 ITNGARKNAFKILFLLTDGSKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQEL 284  CAS ITNGARKNAFKILFLLTDGSKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQEL 284  CAS ITNGARKNAFKILFLLTDGSKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQEL 284

```
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                       용
                                                    ઠે
                                                                         셤
                                                                                                     δ
                                                                                                                           셤
                                                                                                                                                        δ
                                                                                                                                                                              셤
                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                               homology
                                                                                                                                              44;
                                                                                                                                                                                                                        106
                                                                                                                                                                                                                                                                            166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 752
                                                                                                                                                                                                                                                   119
                                                                                                                                                                                                                                                                                                                               219
                                                                                                                                                                                                                                                                                                                                                                                 276
                                                                                                                                                                                                                                                                                                                                                                                                           289
                                                                                                                                                                                                                                                                                                                                                                                                                                     334
                                                                                                                                                                                                                                                                                                                                                                                                                                                             349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                SCTTENKNEPCGARFGTAIAAVKDLNLDGFNDIVIGAPLEDDHGGAVYIYHG-SGKTIRK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEPNKVNI OKKNCH----MEGKETVCINATVCFEVKLKSKEDTIYEADLQ----YRVTLDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LRQISRSFFSGTQERKVQRATTVRKSEC----TKHSFYMLDKHDFQDSVR---ITLDFN
                                                                                                                                                                                                                        -VNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGL
                                                                                                                                                                                                                                                                                          CSDVSPTFQVVNSIAP--VQECSTQ-LDIVIVLDGSNSIYPWDS-----VTAFLNDLLK
                                                                                                                                                                                                                                                                                                                                               SQEGFSAAITSNGPLLSTVGSYDWAGGVPLYTSKE----KSTF-INMTRVDSDMNDAYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -----YEQTR-GGQVSVCPLPRGQRARWQCD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOIDEXDSNTDILLEVGAPMYMGTEKEEQGKVYVYALNQTRFEYQMSLEPIKQTCCSSRQHN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GRPHSRAVFNET - - - - KNSTRROTOVLGLTOTCETLKLQLPNCIEDPVSPIVLRLNFS
                                                                                                                                                                                     61 SLPCVKLDLPVNTSIPNVTEVKENMTFGSTL-VTNPNGGFLACGPLYAYRCGHLHYTTGI
                                                                                                                                                                                                                                                                            CFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKK
                                                                                                                                                                                                                                                                                                                               ----SKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGR-THTATGLRKVV
                                                                                                                                                                                                                                                                                                                                                                                 RELFNITNGARKNAFKILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFR---
                                                                                                                                                                                                                                                                                                                                                                                                                                     --SEKSRQELNTVASKPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GYAAAIILRNRVQSL-VLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AVLYGEOCOPWG-RFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EYAÓRIPSGGDGKTLKFFGÓSIHGEMDLNGDGLTDVTIGGLGGAALFWSRDVAVVKVTMN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FNPREVARNVFECNDQVVKGKEAG--EVRVCLHVQ-KSTRDRLREGQIQSVVTYDLALDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LT-DPENG-----PVLDDSLPNSVHEYIPFAKDCGNKEKCISDLSLHVATTEKDLLIVRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRE-FNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FNLDTENAMTFQENARG-FGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQCDYSTGS
A;Accession: A45226
A;Status::preliminary; not compared with conceptual translation
A;Status::preliminary; not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 1-1151 cBR1>
A;Residues: 1-1151 cBR1>
A;Residues: 1-1151 cBR1>
A;Residues: 1-1151 cBR1>
A;Residues: acquence extracted from NCBI backbone (NCBIP:124126)
A;Note: sequence extracted from NCBI backbone (NCBIP:124126)
C;Superfamily: unassigned collagens; von Willebrand factor type A repeat P;142-317/Domain: von Willebrand factor type A repeat homology cVWAI>
                                                                                                                    Length 1151;
                                                                                                                   18.6%; $core 1093.5; DB 2; Length
27.8%; Pred. No. 8.4e-68;
ive 206; Mismatches 487; Indels
                                                                                                                 Query Match
Best Local Similarity 27.8%; Pi
Matches 3,45; Conservative 206
                                                                                                                                                                                                                        57 CEP-IRLOVPVEA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VDVDSNGSTDLVLIGAPHY-
                                                                                                                                                                                                                                                                                                                                                                                                         231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          701
                                                                                                                                                                                                                                                                            107
                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                220
                                                                                                                                                                                                                                                                                                                                                                                                                                   277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     807
                                                                                                                                                                                                                                                                                                                               167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        722
                                                                                                                                                                      ò
                                                                                                                                                                                            g
                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                          ે
                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

```
of integr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        homology
                                                                                                                                                                                                                      1029
                                                                                                                                                                                                                                                                                                                             ---- OKRELAIQISKDGLPG 1110
                                                                                                                                                                                 969 MPELKLSISFPNMTSNGYPVLYPTGLSS-----SENANCRPHIFEDPFSINSGK 1017
                                                                                                                                                                                                                                         1030 ATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPN 1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                369
                                                                                                                                           987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EGFSAAIT--SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT--RVDSDMN-DAYLGYA 391
 899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              within the I-domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 integrin alpha 2 subunit - bovine (fragment)
C;8pecies: Bos prinagenius taurus (cattle)
C;Date: 16-Aug-1996 #sequence_revision 16-Aug-1996 #text_change 20-Sep-1999
C;Accession: 145914
                      39 SDVSPDF-QLRTSFAPAVQTCP-SFIDVVVVCDESNSIYPWD--AVKNFLEKFVQGLDIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              166 KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLL----GRTHTATGLRKVVRE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       222 LFNITNGARKNAFKILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVIGV-----GDAFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEKSROELNTVASKPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGN-KLLLKANVTSENNMPRTNKTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               79 TTCEKLNÍQISISMSNÝTEMKINMSLGLILIRNVGIGGFLICGPLWAQQCGSQYÝTIGVC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLK--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PTKTOMGLIQYANNPRVVFNLNTFKSKD---EMIKATSOTFQYGGDLTNTFKAIQYARDT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 FNLDTENAMIFQ-ENARGFGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQC--DYST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               55 GSCEPIRLQ-----VPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLC
                                                                                                                                             ---LPISLVF----LVPVRLNQTVIWDRPQVTFSENLSSTCHTKE------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels 168;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
18.2%; Score 1071; DB 2; Length 1170;
Best Local Similarity 27.4%; Pred. No. 3.2e-66;
Matches 333; Conservative 219; Mismatches 495; Indels 168
                                                                                                                                                                                                                                                                                                                                                                   1090 PLPL--IVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                      FOLEL PVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN.
                                                                                                                                                                                                                      988 RLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQE----
                                                                                                                                                                                                                                                                                                                   1075 LTIRGEL-----RSENASLVLSSSN-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      337
                                    854
                                                                                                                                               950
```

arbonetto, Qy laminin a Db Db Ogy Ogy Db i Db Db	492 AVLYGEOGOPHG-RFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISP 550 555 SCTKENKORPCCARRGTALAVCKLANDGAPCEEDDNRGAVYLFHGTSGSGISP 550 551 SHSORIAGSKLSPRLQYPGAAVCKLANDGAPCEEDDHAGAVYTYTHG-SGRTIRE 614 615 SYAQRIPSGCGARGTGTHAGANCLANDGAPCTHAGAGHVLLLBSGPVLRVKARME 610 615 AYAQRIPSGCGARTLKFFGGSIHGEMDLAGGTDVTIGGLGGAALFWARDVAVKYTHN 674 611 FNPREVARNFECNDOVNGKEAG-EVANCHHACKSKEDSIYEADLQYRVTLDS 667 615 FFENKVNIQKKACRGGKETVCINATMCFHVKLKSKEDSIYEADLQ
JULPUNTSIPNUTE	1068 PGGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLALITAALYKIGFFKRQYKDM   1124RKRELAIGISKDGLPGRVPLWVILLSAFAGLLLALITAALYKIGFFKRQYKDM   1126 MSE 1128

```
lymphocyte-Peyer's patch adhesion molecule alpha 4 precursor - mouse
NyAlternate names: integrin alpha-4
C;Species: Mus musculus (house mouse)
C;Species: Mus musculus (house mouse)
C;Accession: A41131; S16742
R;Neuhaus, H.; Hu, M.C.T.; Hemler, M.E.; Takada, Y.; Holzmann, B.; Weissman, I.L.
J. Cell Biol. 115, 1149-1158, 1991
A;Title: Cloning and expression of CDNAs for the alpha subunit of the murine lymphocy A;Reference number: A41131
A;Reference number: A41131
A;Steus: A41131
A;Steus: A41131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        958
                                                                                                                                                                                                                                         680
                                                                                                                                                                                                                                                                                                                                                                              738
                                                                                                                                                                                                                                                                                                                                                                                                                                              772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25
                                                                                                                                                                                                                                                                                                         721
                                                                                                        624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ERCLOKOMMVVNQAQSCPEHIIYIQEPS-----PAUR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EDAORLFTALFPFEKNCGNDNICQDDLSITF----SFMSLDCLVVGGPREFNVTVTVRND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 : : | | : | | : | | : | 3 AYSETAKVFSIPFHKDCGEDGLCISDLYLDVRQIPAAQEQPFIVSNQNKRLIFSVTLKNK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ---SLPISLVFLV----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -- PVRLNQTVIWDRPQVTF-SENLSSTCHTKER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YTKEKNPLMYLTGVQTDKAGDISCNADINPLKIGQT----SSSVSFKSENFR---HTKE-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LLIVSTAEI-LFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNP----LP--LIVGSSVG
                                                                                                                                           625 DQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALD----SGRPHSRAVFNETK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GEDSYRIQVIFFFFDLDLSYRKVSTLQNQRSQRSWRLACESASST-EVSGALKSTSCSINH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PI FPENSEVTFNI TFDVDSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PALKREQQVTFTINFDFNLQ-NLQNQASLSFQALSESQEENKADNLVNLKIPLLYDAEI-
                                                                                                                                                                                                                                                                                                                                                                                 681 NSTRROTOVLGLTQTC--ETLKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                        LQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Residues: 1-1039 <NEU>
A;Residues: 1-1039 <NEU>
A;Cross-references: EMBL:X53176; NID:g51484; PIDN:CAA37316.1; PID:g51485
C;Superfamily: integrin alpha-4 chain
C;Keywords: cytoskeleton; transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 22.7%; Pred. No. 9.3e-38;
Matches 281; Conservative 187; Mismatches 403; Indels 368;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        914 VTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQR-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GLLLLALITAALYKLGFFKRQYKDM 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: mRNA
                                                                                                               265
                                                                                                                                                                               615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1101
                                                                                                                                                                                                                                                                                                                    673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    음 중
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                             ठे
                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Reaidues: 1-16, 'V', 18-21 < 2UT>
A; Cross-references: GB:L24121; NID:g400342; PIDN:AAA16619.2; PID:g4583535
A; Cross-references: GB:L24121; NID:g400342; PIDN:AAA16619.2; PID:g4583535
A; Cross-references: GB:L28013; OMIM:192974
A; Cross-references: GB:L1280131; OMIM:192974
A; Cross-references: GB:L1280131; OMIM:192974
A; Cross-references: GB:L280131; OMIM:192974
A; Map position: 5q11.1-5q11.2
C; Superfamily: unassigned collagens; von Willebrand factor type A repeat homology
C; Keywords: cell adhesion; glycopyotein; heterodimer;
C; Keywords: cell adhesion; glycopyotein; heterodimer;
F; 1-29/Domain: signal sequence #status predicted <EXT-
F; 1-29/Domain: von Willebrand factor type A repeat homology <VWA2>
F; 113-1154/Domain: transmembrane #status predicted <CXT-
F; 115-1181/Domain: intracellular #status predicted <CYT>
F; 115-1181/Domain: intracellular #status predicted <CYT>
F; 115-1181/Domain: intracellular #status predicted <CYT>
F; 115-1181/Domain: intracellular #status predicted <CYT>
F; 115-1181/Domain: intracellular #status predicted <CYT>
F; 115-1181/Domain: intracellular #status predicted <CYT>
F; 115-1181/Domain: intracellular #status predicted <CYT>
F; 115-1181/Domain: intracellular #status predicted <CYT>
F; 115-1181/Domain: intracellular #status predicted <CYT>
F; 115-1181/Domain: intracellular #status predicted <CYT>
F; 115-1181/Domain: intracellular #status predicted <CYT>
F; 115-1181/Domain: intracellular #status predicted <CYT>
F; 115-1181/Domain: intracellular #status predicted <CYT>
F; 115-1181/Domain: intracellular #status predicted <CYT>
F; 115-1181/Domain: intracellular #status predicted <CYT>
F; 115-1181/Domain: intracellular #status predicted <CYT>
F; 115-1181/Domain: intracellular #status predicted <CYT>
F; 115-1181/Domain: intracellular #status predicted <CYT>
F; 115-1181/Domain: intracellular #status predicted <CYT>
F; 115-1181/Domain: intracellular #status predicted <CYT>
F; 115-1181/Domain: intracellular #status predicted <CYT>
F; 115-1181/Domain: intracellular #status predicted <C
                                                                Richard, B.; Paramentier, S.; Leung, L.L.; McGregor, J.L.
Biochem. J. 279, 419-425, 1991
A.Title: Separation of important new platelet glycoproteins (GPIa, GPIc, GPIC*, GPIIa an A.Title: Separation of important new platelet glycoproteins (GPIa, GPIc, GPIC*, GPIIa an A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Molecule type: protein
A.Mo
                                              803
          references: GB:X17033; NID g33906; PIDN:CAA34894.1; PID:g33907
the authors translated the codon GAT for residue 802 as Gln, GTC for residue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SAAITSNGP--LLSTVGSYDWAGGVFLYTSKEKSTFINMT--RVDSDMN-DAYLGYAAAI 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DVDSNGSTDLVLIGAPHY/EQTR--GGOVSVCPLPRGORARWQCDAVLYGEQGOPWGRFG 506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AALTVLGDVNGDKLTDVAHGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGS--KLSPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DVDKDTITDVLLVGAPMYMSDLKKEEGRVYLFTIKKGILGQHQ---FLEGPEGIENTRFG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 FNLDTENAMTFQ-ENARGFGOSVVQL---OGSRVVVGAPQEIVAANQRGSLYQC--DYST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        55 GSCEPIRLQ-----VPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90 ATCEKINLÓTSTSIPNVTEMKTNMSLGLILTRNMGTGGFLTCGFLWAQOCGNOYYTTGVC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLK--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SDISPDF-QLSASFSPATQPCPSL-IDVVVVCDESNSIYPWD--AVKNFLEKFVQGLDIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLG-RTHTATGLRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   206 PTKTQVGLIQYANNPRVVENLNTYKTKEEMIVATSQTSQYGGDLTNTFGAIQYARKYAYS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           225 ITNGARKNAFKILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVIGV-----GDAFRSEK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SROELNTVASKPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANV-----KGTQIGAYFGASLCSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        188;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 26.7%; Pred. No. 5.1e-65;
Matches 327; Conservative 21¢; Mismatches 494; Indels 188.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         166
```

ઠે 유 ठे g ò a ઠે ద g

දු පු

જે g ò g

δ

ઠે

임

ે

YNLDPENALLYQGESGTLEGYSV STGSCEPIRLQVP  RKGPNOTCEQLQSGSPSGEPCGK TCSENTYVKGLCFLEGSNLRQQP WYSTWRDLCYVMPSDLRTEL WYSTVMEQLKSKTLFSLMQYSE	TASWLSNASVVNPGAIYRCGI 100	ATTSP-POLLACGPTVHO 95	RQPGENGSIVTCGHRWKNIFY 160	IAFLIDGSGSIIPHDFRRMKE 155	185				KIFAIEGTQTGSSSSFEHEMS 335	، ر		NVKGTQIGAYFGASLCS 447		-RWQCDAVLYGEQGQPWGRFG 506	VMVEMERVLVGSDKYA-AŘFG 376	SGISPSHSQRIAGSKLSPRLQ 566	DGISSTYSQRIEGQQISKSLR 435		IVEASLS-HPESVNRTKFDCT 494	ALDSGRPHSRAVFNET 679		:   TYHLGHHVITKRNTEEFPPLQ 607	FMSLDCLVVGGPREFNV 787	FLKPYENKTYLAVGSMKTIML 666	SWRLACESASSTEVSGALKST 847 ::			YQVSNLGQRSLP-IŞLVFL 957		RLPSHSDFLAELR 1000	AQQKGIAGTLTDIVKFLSKTD 891	
	FGYSVVLHSHGSKRWLIVGAPT	VEAVNMSLGLSLAATTSP-PQLLACG-	EPCGKTCLEERDNQWLGVTLSR	LROOPOKFPEALRGCPOEDSDI	LRTELSK	MOYSEEFRIHFTFKEFONNPNP	RMAPCYKDYT	FKILFLLTDGEKFGDPLGYEDV 	 DHVFQINNFEALKTIQNQLREK	GSYDWAGGVELYTSKEKSTE	GSSYWTGTVFVYNITTNQYKAF	YOHIGLVAMFRONTGMWESNAN	HEQIGKAYIFSIDENELN	YYEQTRGGOVSVCPLPRGQRA-	OSTIREEGRVFVY-INSGMGAV	Japgeednrgavylfhgtsgs 	igapoeddlrgavyiyngrv-d	DLTVGAQGHVLLLRSQPVLR	DVAVGAFQSDSAVLLRTRPVVI	QKSTRDRLREGQIQSVVTYDLALI 	TEKTOLPNCIEDPVSPIVLRLN	: : :   ::   : THOAFMRKDVRDILTPIHVEAT	EKNCGNDNICODDLSITFS	ARFCAYEN-CSADLOVSAKVGF		TEDVDSKASLGNKLLLKANVT	FLLDVSSLSRAHEDLSISVHAS	KYLNFTASENTSRVMQHQ	: : :   : :   SFVYGSSEENEPETCMAEKLNL	TFSENLSSTCHTKE	LDVQTTTGQCHFKHYGRECTFA	
1	41 YNLDPENALLYQGPSGTLE		101 RKNPNQTCEQLQSGSPSGE	96 TCSENTYVKGLCFLFGSNI	161 MKSDŃKLPTGIĊYVMPSDI							392 AAIILRNRVQSLVLGAPRY	:      : 264 AGHFRSPHTTEVVGGAPQF	448 VDVDSNGSTDLVLIGAPHY	320 VDLNADGFSDL-LVGAPMC	507 AALTVLGDVNGDKLTDVAI	377 ESIANLGDIDNDGFEDIA		4,36 MFGQSISGQIDADNNGYVI	625 DQVVKGKEAGEVRVCLHVQ 		:   : 548 SDVITGSIRVSSSGEKCRJ	735 PVLAEDAQR-LFTALFPFE	608 PILQOKKEKDVIRKMINF	788 TVTVRNDGEDSYRTQVTFE  ::   :   : 667 NVSLENAGDDAYETTLNVC			906 VKYAVYMVVTSHGVSTR	::    ::    : 777 LRYEVMLTVHGLVNPTS	958 VPVRLNOTVIWDRPQVI	835 VPNSFLPQDDKLFNVI	

```
C;Species: Homo sapiens (man)
C;Date: 01-Dec-1989 #sequence revision 01-Dec-1989 #text_change 24-Sep-1999
C;Accession: S06046; A33355; D28018
R;Takada, Y:; Elices, M.J.; Crouse, C.; Hemler, M.E.
EMBO J. 8, 1361-1368, 1989
A;Title: The primary structure of the alpha(4) subunit of VLA-4: homology to other int
A;Reference number: S06046; MUID:89356603; PMID:2788572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A Accession: A39355
A; Molecule type: DNA
A; Molecule type: DNA
A; Molecule type: DNA
A; Residues: 1-93 a ROS.
A; Cross-references: GB: M62841
B; Takada, Y.; Strominger, J.L.; Hemler, M.E.
Broc., Natl. Acad. Sci. U.S.A. 84, 3239-3243, 1987
A; Title: The very late antigen family of heterodimers is part of a superfamily of mole A; Reference number: A94151; MUID:87204112; PMID:3033641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: GDB:128032; OMIM:192975
A;Map position: 2q31-2q32
C;Superfamily: integrin alpha-4 chain
C;Superfamily: integrin alpha-4 chain
C;Keywords: cell adhesion; cytoskeleton; duplication; glycoprotein; heterodimer; trans F;1-39/Domain: signal sequence #status predicted <SIG>P;40-1038/Product: integrin VLA-4 alpha-4 chain #status predicted <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Molecule type: mRNA
A;Residues: 1-1038 <TAK>
A;Residues: 1-1038 <TAK>
A;Cross-references: GB:X16983; EMBL:X15356; NID:g33945; PIDN:CAA34852.1; PID:g33946
R;Rossen, G.D.; Birkenmeier, T.M.; Dean, D.C.
R;Rossen, G.D.; Birkenmeier, T.M.; Dean, D.C.
A;Title: Characterization of the alpha-4 integrin gene promoter.
A;Title: Characterization of the alpha-4 integrin gene promoter.
A;Reference number: A39355; MUID:91239513; PMID:2034655
   1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       53 STG---SCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFL 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ----NGEP----CG----KTCLEERDNOWL--- 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      110 FGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKT 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          170 LPSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGA 229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             230 RKNAFKILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVAS 289
                                                              934 EMDETSSL------KFEIKATAFPEPHPKVIELNKDENVAHVFLEGLHHORPKRHF 983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -----RTELSKRIA 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     66
                                                                                                                                                                                                                                                                                                                                                                                               N, Alternate names: CD49d; very late antigen-4 alpha chain; VLA-4 alpha chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 FNLDTENAMIFQ-ENARGFGQSVV-QLQGSR--VVVGAPQEIVAAN----QRGSLYQCDY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             40 YNVDTESALLYQQPHNTLFGYSVVLHSHGANRWLLVGAPTANWLANASVINPGAIYRCRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     134 -GVTLSRQPGE-------KNGSIVTCGHR----W-----KN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'Match 10.9%; Score 642; DB 2; Length 1038; Local Similarity 23.8%; Pred. No. 2.8e-36; les 293; Conservative 175; Mismatches 409; Indels 356; Gaps
                                                                                                                                   1091 -LPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                     161 -KNENK----LPTGGCYGVP-----PDL-----
1059 FNDSVFTLLPGQGAFVRSQTETKVEPFEVPNP-
                                                                                                                                                                                                                                                                                                                                                                    integrin alpha-4 chain precursor - human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100 GKNPGQTCEQLQLGSP-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        157 IFYI------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Molecule type: protein
A;Residues: 40-50,'E',52-53 <TA2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Genetics:
A;Gene: GDB:ITGA4; CD49D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Accession: S06046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Si
Matches 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                              셤
                                                                                                                               δ
                                                                                                                                                                                                 셤
```

A;Title: Aberrant upregulation of a novel integrin alpha subunit gene at 3p21.3 in sm. A;Reference number: 158409; MUID:94119603; PMID:8290272 A;Accession: 158409 A;Accession: 158409 A;Status: prediminary; translated from GB/EMBL/DDBJ A;Molecule type: mRNA A;Residues: 1-1035 «RES- A;Cross-references: GB:125303; NID:g464180; PIDN:BAA04984.1; PID:g533327 A;Cross-references and tissue distribution of the integrin alpha9 subunit, a novel par'A;Palmer: EL;; Ruegg, C:; Ferrando, R.; Pytela, R.; Sheppard, D. J. Cell Biol. 123, 1289-1297, 1993 A;Title: Sequence and tissue distribution of the integrin alpha9 subunit, a novel par'A;Reference number: A49459; MUID:94064789; PMID:8245132 A;Accession: A49459 A;Accession: A49459 A;Accession: A49459 A;Accession: A49459 A;Accession: A49459 A;Graus: preliminary A;Molecule type: mRNA A;Residues: 30-1035 «PAL> A;Cross-references: GB:L24158 C;Superfamily: integrin alpha4 chain C;Reywords: glycoprotein; metal binding; transmembrane protein F;1-27/Domain: signal sequence #status predicted <sig></sig>	Query Match         10.7%;         Score 630;         DB 2;         Length 1035;           Best Local Similarity 26.5%;         Pred. No. 1.9e-35;         Andels 164;         Gaps 40;           Matches 237;         Conservative 160;         Mismatches 332;         Indels 164;         Gaps 40;           QY         331 EHEMSQEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT-RVDSDMNDAYLG 389	46 CSVDVDSNGSTDLVLIGAPHYYEQTRGGOVSCPLPRGORARWQCDAVLYGEGGOPWGRF	624 NDQVVKGKEAGEVRV-CLHVQKSTRDRLREGQIQSVUTYDLALDSGRPHSRAV	LDLSYRKVSTLONORSORSWRLACESASS :  :	0y   898 TEFQLELPVKYAVYMVTSHGVSTKYLNFTASENTSRWQHQY 940
OY 290 KPPRDHVFOI-NNFEALKTIONOLREKIFAIECTQTGSSSSFEHEMSGEGFSAAITSNGP 348	OY 579 TMDGLVDLTVGAQGHVLLRSQPVLRVKAIMEFNPREVARNYFECNDQVVKGKEAGEV 636	746 TALEPPEKNCGNDNICQDDLSITFSFMSLDCLVVGGPREFNTTVTVRNDGEDSY  619 KKTINFARFCARDNICQDDLSITFSFMSLDCLVVGGPREFNTTVTVRNDGEDSY  800 RTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGALKSTSCSINHPIFPEN  678 ETTLHVKLPVGLYFIXILELBERQINCEUTDNSGVVQ-LDCSIGYIVUDHL  860 SEVTFNITFDVSKASLGNKLLKANVTSENNMPRINKTFFQLELPVKYAVYWVTSH  1	918 GVSTKYLNFTASENTSRVMQHQYQNSNLGQRSLP-ISLVFLVPVRLNQTVIWDRP   :	Qy         1072 AFVRSQTETKVEPFEVPNP	RESULT 14:  154409 integrin alpha-9 chain precursor - human C;Species: Homo sapiens (man) C;Date: 0.50-201-1996 #sequence_revision 02-Jul-1996 #text_change 31-Dec-2000 C;Accession: 158409; A49459 R;Hibi, K.; Yamakawa, K.; Ueda, R.; Horio, Y.; Murata, Y.; Tamari, M.; Uchida, K.; Takah Oncogene 9, 611-619, 1994

**₽** 

Oy 1040 WINTSTRILLY BEATLIANCY		1084 Qy	ALRVVEIAHGNPEEV 962 Db	PKRQYKDMM 1126	Db 835	Qy 1006	, qq	Qy 1060		Ay 1093 -LIVGS	Db 989 WILLVVS	Search completed: No Job time : 19.9579 s	Length 1041; Indels 245; Gaps 41;	RVDSDMNDAYLG 389 	UNVKGTOIGAYFGASLC 446		PDVGPGA	EDNRGAVYLFHGTSGS 546 	AAQGHVLLLRSQPVL 603	: 	IDRLREGOLQSV 658	ELLADGIMVISFIAMI 497	RRLAVSTQFCDPLRAY 557	AEDAGRIFTALFPEK 753 DMATMSTOFFKOVSTON 609	SYRTQVIPFFPLDLSY 813	
च हक क्षमक्षेक्षक्षेत्रीन्यन्ति ं मक्	:	1040 WYIKTSHNHLLIVSTAEILENDSVFTLLPGGGGAFVRSGTETKVEP	::::           :   :   :   :   :   :	-	15	n alpha chain SU2 - sea urchin (Lytechinus variegatu es: Lytechinus variegatus (variegated urchin)	29-Oct-1999 #sequence_revision 29-Oct-1999 #text_chsion: T31437	ler, P.L.; McClay, D.R. ed to the EMBL Data Library, May 1998	iption: Alpha SU2, a sea urchin integrin which binds ence number: Z21035	sion: T31437 s: preliminary, translated from GB/EWBL/DDBJ	ule (ype: MRNA) lus: 1-1041 (ARE) -references: EMBL:AP067658; NID:g3220240; PID:g32202	Tumental source: developmental stage embryo ion: binds laminin family: integrin alpha-2b chain	Query Match 10.4%; Score 614.5; DB 2; Length Best Local Similarity 24.8%; Pred. No. 2.3e-34; Matches 236; Conservative 155; Mismatches 314; Indels	336 QEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLG	390 YAAAIILRNRVQSLVLGAPRYQHI-GLVAMFRQNTGMMESNAN  :	447 SVDVDSNGSTDLVLIGAPHXXEOTRGGOVSVCPLPRGGRARMOCD	VVDI - NNDTYDDLLVGAPMYMDDGPAIQ							LPNCIEDPVSPIVLRLNFSL           :	754 NCGNDNICQDDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSY	KUBUGHNI 1974 IF IBOHOOTIIING ING -HVIIII II TOTU -HVION OLD

```
| 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
```

Search completed: November 25, 2003, 14:22:00 Job time : 19.9579 secs

H.

```
P11215 homo sapien
P05555 mus musculu
P20702 homo sapien
P20701 homo sapien
P20701 homo sapien
P20701 homo sapien
P26199 homo sapien
P5199 homo sapien
P53710 bos taurus
Q94kx5 homo sapien
P1811 rattus norv
P17301 homo sapien
Q0651 mus musculu
P1814 rattus norv
P17301 homo sapien
Q0651 mus musculu
P1817 homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            homo sapien
homo sapien
homo sapien
mus musculu
homo sapien
homo sapien
homo sapien
homo sapien
mus musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    homo sapien
homo sapien
mus musculu
homo sapien
homo sapien
cricetidae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mus musculu
mus musculu
gallus gall
xenopus lae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          homo sapien
mus musculu
gallus gall
homo sapien
homo sapien
homo sapien
gallus gall
mus musculu
                                                                                                                                November 25, 2003, 14:09:04; Search time 9.17418 Seconds (without alignments) 5828.244 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                      US-09-902-481B-4 | 5884
5884
1 FNLDTENAMTFQENARGFGQ......FKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    091687
091687
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
0016888
001688
001688
001688
001688
001688
001688
001688
001688
0016888
001688
001688
001688
001688
001688
001688
001688
001688
0016888
001688
001688
001688
001688
001688
001688
001688
001688
0016888
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
001688
00168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q61739
Q61738
GenCore version 5.1.6
(c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                      127863 segs, 47026705 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1744 MOUSE
11744 HUMAN
11747 KENLA
1747 CRISP
11745 MOUSE
11745 KENLA
11746 MOUSE
11746 CHICK
11746 CHICK
11746 HUMAN
11747 HUMAN
11747 HUMAN
11747 HUMAN
                                                                                     OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     summaries
                                                                                                                                                                                                                                                                                                                                             0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                   BLOSUM62
Gapop 10.0 , Gapext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SwissProt_41:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11152
111633
1116633
111663
111663
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
11170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
1170
117
                     Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3401
1527.5
11527.5
1148.5
1084.5
1084.5
10071
10071
10055
10055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Perfect score:
                                                                                                                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Database :
                                                                                                                                                                                                                                                                                                                                                                                        Searched:
                                                                                                                                                                                                                                                                           Sequence:
                                                                                                                                Run on:
```

P12080 drosophila Q24247 drosophila Q9qum0 mus musculu P08144 homo sapien P53708 homo sapien P11578 cavia porce Q1358 rattus norv P34446 caenorhabdi Q03600 caenorhabdi Q44186 drosophila G9941m8 drosophila	
ITAZ DROME ITAA DROME ITAB MOUSE ITAB HUMAN ITAB HUMAN ITAM CAVPO ITAT HUMAN ITAT AAT PATZ CAEEL ITAJ DROME ITAJ DROME	ı
нанананана	
1396 1146 1033 1033 1025 1126 1139 11139	
@@@@@@@@\\\@ 4.4.W.W.W.O.O.W.W.W.	
494 491.5 489.5 489 4486 4462 4462 446.5 444.5	
₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩	

## ALIGNMENTS

RESULT 1 ITAM HUMAN ITAM HUMAN ITAM HUMAN ITAM HUMAN ITAM HUMAN ITAM HUMAN ITAM HUMAN ITAM HUMAN ITAM HUMAN ITAM HUMAN ITAM HUMAN OCC MAMMAN OCC MAMMAN ITAM HUMAN IT
--

us-09-902-481b-4.rsp

```
17
17
1105
1129
31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHAIN
DOMAIN
TRANSMEM
DOMAIN
REPEAT
                                                                                                                                        EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                         EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL;
THILLY WAS BUSINESS OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -!- DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
-!- SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
-!- SIMILARITY: Contains 1 VWFA domain.
-!- SIMILARITY: Contains 7 FG-GAP repeats.
-!- DATABASE: NAME=PROM; NOTE=CD guide CD11b entry;
WWW-"http://www.ncbi.nlm.nih.gov/prow/cd/cd11b.htm".
                                                                                                                                                                                                                                                                                                                                                                                                            Lee J.O., Rieu P., Arnaout M.A., Liddington R.;
"Crystal structure of the A domain from the alpha subunit of integrin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lee J.O., Bankston L.A., Arnaout M.A., Liddington R.C.; "Two conformations of the integrin A-domain (I-domain): a pathway for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     X-RAY CRYSTALLOGRAPHY (2.7 ANGSTROMS) OF 148-337.
MEDLINE=98362595; PubMed=9687375;
Baldwin E.T., Sarver R.W., Bryant G.L. Jr., Curry K.A.,
Fairbanks M.B., Finzel B.C., Garike R.L., Heinrikson R.L.,
Horton N.C., Kelley L.L., Mildner A.M., Moon J.B., Mott J.E.,
Mutchler V.T., Tomich C.S., Matenpaugh K.D., Wiley V.H.;
"Cation binding to the integrin CD11b I domain and activation model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -:- SUBCELLULAR LOCATION: Type I membrane protein.
-:- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN MONOCYTES AND
                                                                                                                                                                                                                                                               MEDLINE=87076671; PubMed=3539202; Pierre M.W., Remold-O'Donnell E., Todd R.F. III, Arnaout M.A.; N-terre M.W., Requence of human leukocyte glycoprotein Mol: conservation across species and homology to platelet IIb/IIIa."; Biochim. Biophys. Acta 874:368-371(1986).
                                     Shelley C.S., Arnaout M.A.; |
"The promoter of the CD11b gene directs myeloid-specific and
                                                                                                                                        TISSUE=Blood;
MEDLINE=92144986; PubMed=1346576;
MEDLINE=92144986; PubMed=1346576;
MEDLINE=72144986; PubMed=1346576;
"Characterization of the myeloid-apecific CD11b promoter.";
Blood 79:865-870(1992).
                                                                      developmentally regulated expression.";
Proc. Natl. Acad. Sci. U.S.A. 88:10525-10529(1991)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   X-RAY CRYSTALLOGRAPHY (2.0 ÅNGSTROMS) OF 148-334.
MEDLINE=96363671; PubMed=8747460;
                                                                                                                                                                                                                                                                                                                                                                          X-RAY CRYSTALLOGRAPHY (1.7 ANGSTROMS) OF 148-331.
                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=95171458; PubMed=7867070;
SEQUENCE OF 1-9 FROM N.A.
MEDLINE=92073318; PubMed=1683702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Structure 3:1333-1340(1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Structure 6:923-935(1998)
                                                                                                                          SEQUENCE OF 1-9 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 CR3 (CD11b/CD18).";
Cell 80:631-638(1995).
                                                                                                                                                                                                                                                SEQUENCE OF 17-31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GRANULOCYTES.
                                                                          developmentally
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             activation?"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       assessment.
```

```
between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; 852226; AM824821.1; JOINED.

REMBL; 852226; AM824821.1; JOINED.

REMBL; M76724; AM258410.1; -.

REMBL; M76724; AM258410.1; -.

REMBL; M76724; AM258410.1; -.

REMBL; M852226; REMINIB.

REMBL; M871108; REMINIB.

REMBL; M871108; REMINIB.

REMBL; M871108; REMINIB.

REMBL; M871108; REMINIB.

REMBL; M871108; REMINIB.

REMBL; M871108; REMINIB.

REMBL; M871108; REMOV-98.

REMBL; M871108; REMOV-98.

REMBL; M871108; REMOV-98.

REMBL; M871108; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; REMBL; 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INTEGRIN ALPHA-M.
EXTRACELLULAR (POTENTIAL)
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CYTOPLASMIC (POTENTIAL) FG-GAP 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SS2152, AAB24821.1; JOINED.
SS2153, AAB24821.1; JOINED.
SS2154, AAB24821.1; JOINED.
SS2155, AAB24821.1; JOINED.
SS2155, AAB24821.1; JOINED.
SS2164, AAB24821.1; JOINED.
SS2164, AAB24821.1; JOINED.
SS2165, AAB24821.1; JOINED.
SS2166, AAB24821.1; JOINED.
SS2174, AAB24821.1; JOINED.
SS2186, AAB24821.1; JOINED.
SS2186, AAB24821.1; JOINED.
SS2186, AAB24821.1; JOINED.
SS2186, AAB24821.1; JOINED.
SS2186, AAB24821.1; JOINED.
SS2186, AAB24821.1; JOINED.
SS2187, AAB24821.1; JOINED.
SS2188, AAB24821.1; JOINED.
SS2189, AAB24821.1; JOINED.
SS2181, AAB24821.1; JOINED.
SS22181, AAB24821.1; JOINED.
SS22181, AAB24821.1; JOINED.
SS22181, AAB24821.1; JOINED.
SS22181, AAB24821.1; JOINED.
SS2221, AAB24821.1; JOINED.
SS2221, AAB24821.1; JOINED.
SS2221, AAB24821.1; JOINED.
SS2222, AAB24821.1; JOINED.
SS2222, AAB24821.1; JOINED.
SS2222, AAB24821.1; JOINED.
                                                                                                                                                                                                                                                                                                      EMBL; J03925; AAA59544.1; -.
                                                                                                                                                                                                                                                                                                                                                    M18044; AAA59491.1;
J04145; AAA59903.1;
S52227; AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16
1152
1104
1128
1152
```

```
Bukaryota; Metazoa; Chordata;
Mammalia; Butheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ASSOCIATES WITH BETA-2.
                                                                                                                                                                                        Mus musculus (Mouse)
                                                                                                                                                                                                                      NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUBUNIT
                                                                                                          MOUSE
                                                                                                                                                                                                                                                             Pytela R.;
                 1036
1021
                                      1081
                                                                                                                                                                               ITGAM
                                                                                                          ITAM
                셤
                                                                                                                   용
ઠ
                                     ઠે
                                                                                      120
                                                                                                         136
                                                                                                                              180
                                                                                                                                                                    240
                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                             436
                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                           555
                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                   615
                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             975
                                                                                                                                               196
                                                                                                                                                                                                                               316
                                                                                                                                                                                                                                                                                                                                                   496
                                               9
                                                                 9,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                       TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                              QNTGMMESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                   PRG-RARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                         HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QLELPVKXAVXMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QLELPVKKAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLFISLVFLVPV
                                                          FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                         FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILVVI
                                                                                                                                                                                                           TOGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                  NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                             GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                     PVLRVKAIMEFNPREVARNVFECNDOVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGOIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                               FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                      RLQVPVEAVNMSLGLSLAA†TSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                             FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                   RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                         GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                 ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                       PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                               HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                             Gaps
                             1;
         Length 1152;
                            Indels
         DB 1;
                            5;
     Score 5836.5;
Pred. No. 0;
                             Mismatches
       99.2%;
larity 99.1%;
Conservative
                  Similarity
                 Best Local Simi
Matches 1127;
      Query Match
                                               -
                                                                                      61
                                                                                                                            121
                                                                                                                                               137
                                                                                                                                                                   181
                                                                                                                                                                                       197
                                                                                                                                                                                                                               257
                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                     317
                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                            377
                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                   437
                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                           497
                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 196
                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                      OP
                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                원
                                                                                    ò
                                                                                                        g
                                                                                                                            ે
                                                                                                                                           g
                                                                                                                                                               ò
                                                                                                                                                                                   ద
                                                                                                                                                                                                          ò
                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                 ∂
                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
Springer T.A., Teplow D.B., Dreyer W.J.;

"Sequence homology of the LFA-1 and Mac-1 leukocyte adhesion
"Sequence homology of the LFA-1 and Mac-1 leukocyte adhesion
"Sequence homology of the LFA-1 and Mac-1 leukocyte adhesion
"Sequence homology of the LFA-1 and Mac-1 leukocyte adhesion
"I sequence homology of the LFA-1 and Mac-1 leukocyte adhesion
"Sequence homology of the LFA-1 and Mac-1 leukocyte adhesion
"I sequence homology of the LFA-1 and Mac-1 leukocyte adhesion
"Sequence homology of the LFA-1 and Mac-1 leukocyte adhesion
"Sequence homology of the LFA-1 and Mac-1 leukocyte adhesion
"Sequence homology of the LFA-1 and Mac-1 leukocyte adhesion
"Sequence homology of the LFA-1 and Mac-1 leukocyte adhesion
"Sequence homology of the LFA-1 and Mac-1 leukocyte adhesion
"Sequence homology of the LFA-1 and Mac-1 leukocyte in the LFA-1 and Mac-1 leukocyte in the LFA-1 and Mac-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte in the LFA-1 leukocyte 
FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                               FFGIQEEFNATLKGNLSFDMYIKTSHNHLLIVSTAEILENDSVFTLLPGGGAFVRSQTET 1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                                                                                                                                 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -i- DOMAIN: THE INTECRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLENVAGE.
-i- SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
-i- SIMILARITY: Contains 1 VWFA domain.
-i- SIMILARITY: Contains 7 FG-GAP repeats.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOV-1988 (Rel. 09, Created)
01-FEB-1991 (Rel. 17, Last sequence update)
28-FEB-2003 (Rel. 11, Last annotation update)
Integrin alpha-M precursor (Cell surface glycoprotein MAC-1 alpha subunit) (CR-3 alpha chain) (CD11b) (Leukocyte adhesion receptor MOI).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    homology
                                                                                                                                                                                                                                                                                            KVEPPEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Craniata, Vertebrata, Euteleostomi,
Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 11-45 FROM N.A.
STRAIN=BALB/C; TISSUE-Spleen;
MEDLINE=B6287312; PubMed=2942940;
Sastre L., Roman J.M., Tepplow D.B., Dreyer W.J., Gee C.E.,
Larson R.S., Roberts T.M., Springer T.A.;
"A partial genomic DNA clone for the alpha subunit of the mouse complement receptor type 3 and cellular adhesion molecule Mac-1."
Proc. Natl. Acad. Sci. U.S.A. 83:5644-5648 (1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -i- SUBCELLULAR LOCATION: Type I membrane protein.
-i- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN MONOCYTES AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              : HETERODIMER OF AN ALPHA AND A BETA CHAIN. ALPHA-M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Amino acid sequence of the murine Mac-1 alpha chain reveals with the integrin family and an additional domain related to willbrand factor."

EMBO J. 7:1371-1378 (1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE OF 17-28.
MEDLINE=85188276; PubMed=3887182;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. MEDLINE #88312584; PubMed #3044779;
```

Tue

```
RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              . 096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        964
                                                                                                    121
                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                      317
                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                 셤
                                                                                                    ठे
                                                                                                                                      용
                                                                                                                                                                                  ò
                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@jsb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                    EMBL; X07640; CAA30479 1; --
R EMBL; X07640; CAA39484.1; --
R HSSP; P10151; 1A8X.
R P10251; S00551.
R R RSP; P10155; 1A8X.
R MGD; MGI:96607; Itgam.
InterPro; IPR000431; Integrin_alpha.
R Pfam; PF00183; FG-GAP; 3.
R Pfam; PF00185; INTEGRINA.
R PRINTS; PR00185; INTEGRINA.
R PRINTS; PR00191; Int_alpha; 5
R SMART; SM00191; Int_alpha; 5
R SMART; SM00191; Int_alpha; 5
R SMART; SM00191; Int_alpha; 5
R SMART; CACIUM; Receptor; Glycoprotein; Transmembrane;
R PROSTIE; P850234; VWRA; 1.
R R STORIM; Calcium; Repeat.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 75.8%; Score 4460; DB 1; Length 1 Best Logal Similarity 73.8%; Pred. No. 2.6e-297; Matches 840; Conservative 146; Mismatches 150; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EXTRACELLULAR (POTENTIAL).
POTENTIAL.
CYTOPLASMIC (POTENTIAL).
FG-GAP 1.
FG-GAP 2.
VWFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            178DB988AECB0343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INTEGRIN ALPHA-M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOTIF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
POTENTIAL.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GFFKR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          127480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        123
7111
776
1023
1033
1033
86
391
696
774
772
801
907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               941
980
994
1022
1045
1051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16
1153
1105
1129
1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       537
600
1136
73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ą,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        994
1022
1045
1051
1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
DISULFID
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
TRANSMEM
DOMAIN
REPEAT
REPEAT
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REPEAT
REPEAT
REPEAT
CA BIND
CA BIND
CA BIND
CA BIND
SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL
  SOLUTION TO THE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE ST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
```

1019 540 600 9 720 735 780 839 855 899 915 959 975 480 555 615 675 795 496 316 360 376 420 436 180 240 256 300 GHGALKSTTWNINHPIFPANSEVTFNVTFDVDSHASFGNKLLLKAIVASENNMSRTHKTK PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQCAFVRSQTE NFEALKTIONOLREKIFA I EGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG 721 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG TLVGEPLRSFGNLRPVLAMDAQRFFTAMFPFEKNCGNDSICQDDLSITMSAMGLDTLVVG 781 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRL-ACESASSTE 940 VSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTE POLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVP 916 FQLELPVKYAIYMIVTSDESSIRYLNFTASEMTSKVIQHQYQFNNLGQRSLPVSVVFWIP VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI PRGORARWQCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVA1GAPGEEDNRGAVYLF HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 5.6 YGASIASLSASHSHRIIGAHFSPGLQYFGQSLSGGKDLTMDGLMDLAVGAQGHLLLLRAQ PVLRVKA I MEFNPREVARNV FECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQ I QSVVT FPEALRECPQQESDIVFLIDGSGSINNIDFQKWKEFVSTVMEQFKKSKTLFSLMQYSDEF TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN NFAINTIONOLOEKIFAIEGTOTGSTSSFEHEMSOEGFSASITSNGPLIGSVGSFDWAG GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL

```
EMBL; M29486; AAA51620.1; JOINED
                           PIR; A36584; RWHUIC.
PDB; IN3Y; 18-FEB-03.
Genew; HGNC:6152; ITGAX.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
CA BIND
CA BIND
CA BIND
CA BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CHAIN
      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license parement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
SIMILARITY: CONTAINS I VMFA domain.
SIMILARITY: Contains 7 FG-GAP repeats.
DATABASE: NAME=PROW; NOTE=CD guide CD11c entry;
WWW="http://www.ncbi.nlm.nih.gov/prow/cd/cd11c.htm".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          J. Immunol. 138:2381-2383(1987).
-!- FUNCTION: INTEGRIN ALPHA X/BETA-2 IS A RECEPTOR FOR FIBRINOGEN. IT RECOGNIZES THE SEQUENCE G-P-R IN FIBRINOGEN. IT MEDIATES CELL-CELL INTERACTION DURING INFLAMMATORY RESPONSES. IT IS ESPECIALLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.

MEDLINE=8816645; PubMed=3327687;
Corbi A.L., Miller L.J., O'Connor K., Larson R.S., Springer T.A.;
"CDNA cloning and complete primary structure of the alpha subunit of an leukocyte adhesion glycoprotein, p150,95.";
EMBO J. 6:4023-4028(1987).
                                                                                                                                         01-FEB-1991 (Rel. 17, Created)
01-FEB-1991 (Rel. 17, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
Integrin alpha-X precursor (Leukocyte adhesion glycoprotein p150,95
alpha chain) (Leukocyte adhesion receptor p150,95) (CD11c) (Leu M5)
ITGAX OR CD11C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 20-43.

MEDLINE=87167596; PubMed=3549901;

Miller L.J., Wiebe M., Springer T.A.;

Miller L.J., Wiebe W., Springer T.A.;

Miller L.J., Wiebe W., Springer T.A.;

Miller L.J., Wiebe W., Springer T.A.;

Miller L.J., Wiebe W., Springer T.A.;

Miller L.J., Wiebe W., Springer T.A.;

Miller L.J., Wiebe W., Springer W., Springer W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wieber W., Wie
                                                                                                                                                                                                                                                                                                                                                        Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBCELLULAR LOCATION: Type I membrane protein.
TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN MONOCYTES AND
GRANULOCYTES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IMPORTANT IN MONOCYTE ADHESION AND CHEMOTAXIS.
SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-X
ASSOCIATES WITH BETA-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=90153906; PubWed=2303426;
Corbi A.L., Garcia-Aguilar J., Springer T.A.;
"Genomic structure of an integrin alpha subunit, the leukocyte
p150,95 molecule.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Corbi A.L., Garcia-Aguilar J., Springer T.A.;
J. Biol. Chem. 265:12750-12751(1990).
                                                                                        PRT; 1163 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Biol. Chem. 265:2782-2788(1990)
                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                            (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                     ITAX HUMAN P20702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ERRATUM
                                                            TAX_HUMAN
                              RESULT 3
```

- NOT ANNOTATED CDS.
AAA51620.1; ALT SEQ.
AAA51620.1; JOINED.
AAA51620.1; JOINED.
AAA51620.1; JOINED.

M29484; M29485;

M29483; M29482;

EMBL; M81695; AAA59180.1; -.

M29487; M29165;

EMBL; EMBL; EMBL; EMBL; EMBL; EMBL;

```
4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           138 LPVSRQECPRQEQDIVFLIDGSGSISSRNFATMMNFVRAVISQEQRPSTQFSLMQFSNKF 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ||||||||
20 FNLDTEELTAFRVDSAGFGDSVVQYANSWVVVGAPQKITAANQTGGLYQCGYSTGACEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         80 GLOVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6; Gaps
                                                                                                                          InterPro; IPR002035; VWF_A.

R InterPro; IPR002035; VWF_A.

R Pfam; PR00139; RG-GAR; 3.

R Pfam; PR00357; integrin_A; 1.

R Pfam; PR00185; INTEGRINA.

R PRINTS; PR00185; VWAF, 1.

R SMART; SM00191; Int_alpha; 5.

R SMART; SM00191; Int_alpha; 5.

R SMART; SM00137; VWAF; 1.

R PROSITE; PS00242; INTEGRIN_ALPHA; 1.

R PROSITE; PS00244; VWRAF; 1.

R PROSITE; PS00244; VWRAF; 1.

R Integrin; CC11 adhesion; Receptor; Glycoprotein; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...) (POTENT N-LINKED (GLCNAC. ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
GO; GO:0008305; C:integrin complex; TAS.
GO:0004892; F:cell adhesion receptor activity; TAS
GO; GO:0004872; F:receptor activity; TAS.
GO; GO:0007397; P:histogenesis and organogenesis; TAS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EXTRACELLULAR (POTENTIAL)
POTENTIAL.
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tch 58.8%; Score 3459; DB 1; 3 slmilarity 60.9%; Pred. No. 9.9e-229; 687; Conservative 142; Mismatches 294;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Signal; Magnesium; Calcium; Repeat; 3D-structure
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INTEGRIN ALPHA-X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GFFKR MOTIF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        127885 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1163
1107
1128
1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
1135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 863
1022
1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 756 75
1163 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
```

Euteleostomi;

Craniata; Vertebrata; E Catarrhini; Hominidae;

Chordata;

Bukaryota; Metazoa; Chordata; Mammalia; Butheria; Primates;

NCBI\_TaxID=9606;

FROM N.A.

SEQUENCE

Homo sapiens (Human)

Integrin

(ADB2)

(CD11d)

â

alpha-D precursor (Leukointegrin alpha

```
1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1094
                                                                                                                                                                                                                                                                                                                                                                                                                                      914
                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                             196
                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                          959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            974
                                                                                                                                                  480
                                                                                                                                                                                       540
                                                                                                                                                                                                         556
                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                               616
                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                   919
                                                                                                                                                                                                                                                                                                                       736
                                                                                                                                                                                                                                                                                                                                                                                                  854
                                                                                                            420
                                                                                                                               437
                                                                                                                                                                    497
RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                               NFEALKT10NOLREK1FA1EGTQTGSSSFEHEMSQEGFSAA1TSNGPLLSTVGSYDWAG
                                                                                  HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                        SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                     GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                     SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                              PRGORARWOCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                              YDLALDSGRPHSRAVFNETKOSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                 SNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEGOKOGOLRSLHLTCDSAPVG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                           OLELPVKYAVYMVTSHGVSTKYLNFTAS-ENTSRVMOHOYOVSNLGORSLPISLVFLVP
                                                                                                            GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                  ONTGMMESNANVKGTQ1GAYPGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                  PRGWR-RWWCDAVLYGEQGHPWGRFGAALTVLGDVNGDKLTDVV1GAPGEEENRGAVYLF
                                                                                                                                                                                                                                                                  PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    378
                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                             737
                                                                                                                                                                                                                                                                                                                                                                                                   797
                                                                                                                                                                                                                                                                                                                                                                                                                                        855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1095
                                                                                           318
                                                                                                                                                                                                                                               557
                                                                                                                                                                                                                                                                                     617
                                                                                                                                                                                                                                                                                                                        677
                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                            721
                                                       258
                                                                                                                                                   421
                                                                                                                                                                      438
                                                                                                                                                                                         481
                                                                                                                                                                                                          198
                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                              g
                                                                                                                                                                 g
                                                                                                                                                                                                   g
                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                          8 6 8
                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                    8 6
                                                                                                                                                                                                                                                                                                                                                                              දු පු
                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                       셤
                                                                                                            ò
                                                                                                                                               ò
                                                                                                                                                                                      ò
                                    ઠે
```

a human

T.A.; novel gene-encoding

FROM

910-1125

AND

467-537; 571-602; 633-666; 788-834

SEQUENCE OF

MEDLINE=96257236; PubMed=8666289; Wong D.A., Davis E.M., LeBeau M., Springer "Cloning and chromosomal localization of a beta 2-integrin alpha subunit."; Gene 171:291-294(1996).

[4] INTERACTION WITH VCAM1

Noti J.D., Johnson A.K., Dillon J.D.; Structural and functional characterization of the leukocyte integrin gene CD1d. Essential role of Sp1 and Sp3."; J. B1ol. Chem. 275:8959-8969(2000).

MEDLINE=20187620; PubMed=10722744;

SEQUENCE OF 1-235 FROM N.A. [mmunity 3:683-690(1995)

MEDLINE=96111956; PubMed=8777714; Van der Vieren M., Le Trong H., Wood C.L., Moore P.F., St John T., Staunton D.E., Gallatin W.M.; "A novel leukointegrin, alpha d beta 2, binds preferentially to ICAM-

MEDLINE=99059842; PubMed=9841932; Grayson M.H., Van der Vieren M., Sterbinsky S.A., Michael Gallatin W., Hoffman P.A., Staunton D.E., Bochner B.S.; "alphadbeta2 integrin is expressed on human eosinophils and functions as an alternative ligand for vascular cell adhesion molecule 1

```
the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ASSOCIATES WITH BETA-2.

-!- SUBCELLULAR LOCATION: Type I membrane protein.
-!- SUBCELLULAR LOCATION: Type I membrane protein.
-!- TISSUE SPECIFICITY: EXPRESSED MODERATELY ON MYELOMONOCYTIC CELL
--- LINES AND SUBSETS OF PERIPHERAL BLOOD LEUKOCYTES AND STRONGLY ON
--- TISSUE-SPECIALIZED CELLS, INCLUDING MACNOPHAGES FOAM CELLS WITHIN
--- TISSUE-SPECIALIZED CELLS, INCLUDING MACNOPHAGES FOAM CELLS WITHIN
--- DOMAIN: THE INTEGRIN I DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS
WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
--- SIMILARITY: CONTAINS 10 THE INTEGRIN ALPHA CHAIN FAMILY.
--- SIMILARITY: CONTAINS 7 FG-GAP repeats.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FUNCTION: INTEGRIN ALPHA-D/BETA-2 IS A RECEPTOR FOR ICAM3 AND VCAM1. MAY PLAY A ROLE IN THE ATHEROSCLEROTIC PROCESS SUCH AS CLEARING LIPOPROTEINS FROM PLAQUES AND IN PHAGOCYTOSIS OF BLOODBORNE PATHOGENS, PARTICULATE MATTER, AND SENESCENT ERYTHROCYTES FROM THE BLOOD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hoffman P.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      There are no
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Exp. Med. 188:2187-2191(1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; U37028; AAB38547.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INTERACTION WITH VCAM1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2
```

sequence update) annotation update)

TTAD\_HUMAN STANDARD; 1013349; 015575; 015576; 16-0CT-2001 (Rel. 40, Created) 16-0CT-2001 (Rel. 41, Last enno

DA LL

HUMAN

ITAD

Ş 1162

480 496 540

436

600 616 9 674 720

556

```
960 VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLABLRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                            TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                  61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                 18 FNLDVEEPTIFQEDAGGFGQSVVQFGGSRLVVGAPLEVVAANQTGRLYDCAAATGMCQPI 77
                                                                                                                                                                                                                                                                                                                                             301 NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                       HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QLELPVKYAVYMV/TSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRGORARWOCDAVLYGEQGQPWGRFGAALTVLGDVNGDXLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         854 EG-LRSSRCSVNHPIFHEGSNGTFIVTFDVSYKATLGDRMLMRASASSENNKASSSKATF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QLELPVKYAVYTMISRQEESTKYFNFATSDEKKMKEAEHRYRVNNLSQRDLAISINFWVP
                                                                                                            121 PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                     RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                         257
                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                     437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               913
                                                                               8
                                                                                                                                  용
                                                                                                                                                                     ઠે
                                                                                                                                                                                               셤
                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                      ሯ
                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                               요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                            (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .,
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1162;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tch
al Similarity 59.3%; Pred. No. 9.3e-225;
(669; Conservative 167; Mismatches 285; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WW; F296A1A35455D77D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | GFFKR MOTIF. |
| BY SIMILARITY. |
| BY SIMILARITY. |
| BY SIMILARITY. |
| BY SIMILARITY. |
| BY SIMILARITY. |
| BY SIMILARITY. |
| BY SIMILARITY. |
| BY SIMILARITY. |
| BY SIMILARITY. |
| BY SIMILARITY. |
| BY SIMILARITY. |
| BY SIMILARITY. |
| BY SIMILARITY. |
| BY SIMILARITY. |
| CICNAC. |
| N-LINKED (GLCNAC. .) |
| CHONED (GLCNAC. .) |
| N-LINKED (GLCNAC. .) |
| N-LINKED (GLCNAC. .) |
| N-LINKED (GLCNAC. .) |
| N-LINKED (GLCNAC. .) |
| N-LINKED (GLCNAC. .) |
| N-LINKED (GLCNAC. .) |
| N-LINKED (GLCNAC. .) |
| N-LINKED (GLCNAC. .) |
| N-LINKED (GLCNAC. .) |
| N-LINKED (GLCNAC. .) |
| N-LINKED (GLCNAC. .) |
| N-LINKED (GLCNAC. .) |
| MISSING (IN REF. 2) |
| GHPM -> ATP (IN REF. 2) .
EMBL; U40275; AAB60634.1; -...
REMBL; U40275; AAB60635.1; -...
REMBL; U40279; AAB60637.1; -...
REMBL; U40279; AAB60638.1; -...
REMBL; U40279; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
REMBL; U40278; AAB60638.1; -...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     126885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  733
873
873
957
1046
1046
500
515
825
984
984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
CARBOHYD
CARBOHYD
CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loca
Matches
```

9

1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128

1030

840

853 900

780 794

<sup>1</sup> FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI

TISSUE SPECIFICITY: LEUKOCYTES

```
MEDLINE=99425288; PubMed=10493852; Kallen J., Welzenbach K., Ramage P., Geyl D., Kriwacki R., Legge G., Cottens S., Weitz-Schmidt G., Hommel U.; Cottens S., Weitz-Schmidt G., Hommel U.; Structural basis for LFA-1 inhibition upon lovastatin binding to the CD11a I-domain.; J. Mol. Biol. 292:1-9(1999)
-!- FUNCTION: INTEGRIN ALPHA-L/BETA-2 IS A RECEPTOR FOR ICAM1, ICAM2, I-FUNCTION: INVOICED IN A VARIETY OF IMMUNE PHENOMENA INCLUDING LEUKOCYTE-ENDOTHELIAL CELL INTERACTION, CYTOTOXIC T-CELL MEDIATED KILLING, AND ANTIBODY DEPENDENT KILLING BY GRANULOCYTES
                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. (ISOFORM 1), AND PARTIAL SEQUENCE.
MEDLINE=89139587; PubMed=2537322;
Larsoon R.S., Corbí A.L., Berman L., Springer T.;
Primary structure of the leukocyte function-associated molecule-1
alpha subunit: an integrin with an embedded domain defining a protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. (ISOFORM 2).

MEDLINE=99425270; PubMed=10493829;
Loftus*B.J., Kim U.-J., Sneddon V.P., Kalush F., Brandon R.,
Fuhrmann J., Mason T., Crosby M.L., Barnstead M., Cronin L.,
Deslattes Mays A., Cao Y., Xu R.X., Kang H.-L., Mitchell S.,
Eichler E.E., Harris P.C., Venter J.C., Adams M.D.;
"Genome duplications and other features in 12 Mb of DNA sequence from human chromosome 16p and 16q";
Genomics 60:295-308(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        X-RAY CRYSTALLOGRAPHY (1.8 ANGSTROMS) OF 153-335, AND REVISION TO 214. MEDLINE-96036067; PubMed=7479767; Qu A., Leahy D.J., Capy D.J., Capy D.J., Capy D.J., Capy D.J., Capy D.J., Lebra 2.) integrin.";
                                                                                                           TTAL HUMAN STANDARD, PRT; 1170 AA.
P20701; 043746;
01-FBE-1991 (Rel. 17, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
Integrin alpha-L precursor (Leukocyte adhesion glycoprotein LFA-1 alpha chain) (Leukocyte function associated molecule 1, alpha chain)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ou A., Leahy D.J.;
"The role of the divalent cation in the structure of the I domain from the CD11a/CD18 integrin.";
Structure 4:931-942(1996).
                                                                                                                                                                                                                                                                                                                  Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-L
  1091 MVLEEDEVYNAIPIIMGSSVGALLLLALITATLYKLGFFKRHYKEMLED 1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Proc. Natl. Acad. Sci. U.S.A. 92:10277-10281(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ASSOCIATES WITH BETA-2. SUBCELLULAR LOCATION: Type I membrane protein. ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Isold=P20701-2; Sequence=VSP_002738;
Note=No experimental confirmation available;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         X-RAY'CRYSTALLOGRAPHY (2.0 ANGSTROMS) OF 153-335.
MEDLINE=96398682; Pubmed=8805579;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          K-RAY CRYSTALLOGRAPHY (2.6 ANGSTROMS) OF 153-334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IsoId=P20701-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cell Biol. 108:703-712(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AND MONOCYTES.
                                                                                                                                                                                                                                                                                                      TGAL OR CD11A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         superfamily.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Name=1;
                                                                                                                     HID DEBET TO THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET OF THE SET O
  음
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch)
-i- DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERCO PROTEASE CLEAVAGE.
-i- SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
-i- SIMILARITY: Contains 1 VWFA domain.
-i- SIMILARITY: Contains 7 FG-GAP repeats.
-i- DATABASE: NAME-EROW; NOTE-CD guide CD11a entry;
-WWW="http://www.ncbi.nlm.nih.gov/prow/cd/cd11a.htm".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSTIE; PROSCA?; VRTA: 1.

PROSTIE; PS50234; VRTA; 1.

Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane; Signal; 3D-structure; Magnesium; Calcium; Repeat;
Alternative splicing.
SIGNAL 1 26
DOMAIN 26 1088 EXTRACELLULAR (POTENTIAL).
TRANSMEM 1089 11170 CYTOPLASMIC (POTENTIAL).
PRANSMEM 1131 1170 CYTOPLASMIC (POTENTIAL).
REPEAT 42 91 FG-GAP 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CYTOPLASMIC (POTENTIAL).
FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIMILARITY.
SIMILARITY.
SIMILARITY.
SIMILARITY.
SIMILARITY.
SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 7.
POTENTIAL.
POTENTIAL.
POTENTIAL.
FG-FOR MOTIF.
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GO, GO:0008105; C:integrin complex; TAS. GO; GO:0008105; C:integrin complex; TAS. GO:0006928; P:cell motility; TAS. InterPro; IPR000411; Integrin_alpha. InterPro; IPR02035; VWF_A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VWFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL, AC002310; AAC31672.1; ---
PIR; S03308; S03308.
PDB; IZON; O7-DEC-96.
PDB; IZOO; O7-DEC-96.
PDB; IZOO; O7-DEC-96.
PDB; IZOO; O7-DEC-96.
PDB; ICOP; O7-DEC-96.
PDB; IDGQ; O3-FEB-00.
PDB; IMGN; 14-JAN-03.
PDB; IMGO; 14-JAN-03.
PDB; IMGO; 14-JAN-03.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam; PF01839; FG-GAP; 3.
Pfam; PF001857; integrin A; 1.
Pfam; PF00192; vwa; 1.
PRINTS; PR01185; INTEGRINA.
PRINTS; PR00453; VWFADOMAIN.
SMART; SM00191; Int. alpha; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; Y00796; CAA68747.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HGNC:6148; ITGAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REPEAT
CA BIND
CA BIND
CA BIND
SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genew:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MIM;
```

```
1043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    588
                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          887
                                                                                                                             470
                                                                                                                                                                                                               528
                                                                                                                                                                                                                                                                                                                                                                        647
                                                                                                                                                                                                                                                                                                                                                                                                                                                     707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 986
                                                                                     429
                                                                                                                                                                     489
                                                                                                                                                                                                                                                                                                                                  601
        310 FVKILDTFEKLKDLFTELQKKIYVIEGTSKQDLTSFNMELSSSGISADLSRGHAVVGAVG
                                                                                                                                                                                                                                                                                                             876 LGNKLLLKANVTSENN----MPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            - ERLPSHSD--FLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EDPVSPIVLRLNFSL - - - VGTPLS - - AFGN - - - - - LRPVLAEDAQRLFTALFPFEKNCGN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNICODDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           888 WGDSVELHANVTCNNEDSDLLEDNSATTI---IPILYPINILIQDQEDSTLYVSFTPKGP
                                                                                                                                                                                                                                                                                                                                                                        GAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVV-KGKEAGEVRVCLHVQKSTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                   DRLREGOIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              818 TLQNQRSQRSWRLACES--ASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKAS
                                                                           RGGOVSVCPLPRGORARWQCDAV - LYGEQGOPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                        GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               932 TSRVMQHQYQV---SNLGQRSLP-ISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTK-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1044 TSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLL
                                              SYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQH
                                                                                                                             IGLVAMFR -- ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYBQT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAR-1992 (Rel. 21, Created)
01-MAR-1992 (Rel. 21, Last sequence update)
28-FEB-2003 (Rel. 41, Last annocation update)
18-FEB-2003 (Rel. 41, Last annocation update)
18-FEB-2003 (Rel. 41, Last annocation update)
18-FEB-2003 (Rel. 41, Last annocation associated molecule I, alpha chain)
18-FEB-201 (Leukocyte function associated molecule I, alpha chain)
18-FEB-201 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
18-FEB-203 (Mouse)
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LLALITAALYKLGFFKRQYKDMMSEG-GPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 6
ITAL_MOUSE
ID _ITAL_MOUSE
AC P24063;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1104
                                                                                                                                                                 430
                                                                                                                                                                                                                                                  490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1103
                                                355
                                                                                                                             413
                                                                                                                                                                                                             471
                                                                                                                                                                                                                                                                                                                                                                        589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OC SEE BEEFFE
                                                                                 원
                                                                                                                                                             셤
                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                        ठे
                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -QQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HUFQINNFEALKTIQNQLREXIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LQGRPGFQECIKG----NVDLVFLFDGSMSLQPDEFQKILDFWKKKLSNTSYQFAAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FNLDTENAMTFQ - - ENARGEGOSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PIRLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLR---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ch 26.3%; Score 1547.5; DB 1; Length 1170; Il Similarity 34.3%; Pred. No. 9.1e-98; 403; Conservative 210; Mismatches 460; Indels 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MW; 39A7AF92EF286FC0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            128819
                                                                                                                                                                                                                                                                                                                              1162
11164
11186
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
11188
1188
1188
1188
1188
1188
1188
1188
1188
1188
1188
1188
1188
1188
11
      89
188
649
670
726
730
862
885
897
1060
1071
                                                                                                                                                                                                                                                                                                                                                                                      89
188
649
670
730
862
885
885
897
1060
    CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                  CONFLICT
CONFLICT
CONFLICT
STRAND
TURN
TURN
STRAND
STRAND
HELIX
HELIX
TURN
HELIX
TURN
HELIX
TURN
HELIX
TURN
HELIX
TURN
HELIX
TURN
HELIX
TURN
HELIX
TURN
STRAND
STRAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HELIX
HELIX
TURN
HELIX
HELIX
STRAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HELIX
TURN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loca
Matches
      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
```

```
430 QVLLFQAPEAGGRWNQTQKIEGTQIGSYFGGELCSVDLDQDGEAELLLIGAPLFFGEQRG 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180 FRIHFTFKEF-ONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILF 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              199 CRIEFIFLDYVKONKNPDVLLGSVQPMFLLINTFRAINYVVAHVFKEESGARPDAIKVLV 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        415 LVAMFR--QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRG 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             473 GQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKCTDVAIGAPGEED 532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60 IRLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQ 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  239 LLTDGEKF--GDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHV 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            297 FQINNFEALKTIQNQLREKIFAIECTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSY 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HULLIRSQPULRVKAIMEFNPREVARNVFECNDQVVKGKEAG-EVRVCLHVQKSTRDRLR 651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 FNLDTENAMTFQENA-RGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEP 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120 KPPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQHIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           533 NRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 26.0%; Score 1527.5; DB 1; Length 1163; Best Local Similarity 34.1%; Pred. No. 2.1e-96; Matches 398; Conservative 217; Mismatches 463; Indels 89; Gaps
                                                                                                                                                                                                                                                                668 668 N-LINKED GLCNAC. . . . (POTENT 724 724 724 N-LINKED GLCNAC. . . ) (POTENT 726 724 724 N-LINKED GLCNAC. . . ) (POTENT 728 724 N-LINKED GLCNAC. . . ) (POTENT 728 N-LINKED GLCNAC. . ) (POTENT 857 857 N-LINKED GLCNAC. . ) (POTENT 890 890 N-LINKED GLCNAC. . ) (POTENT 890 890 N-LINKED GLCNAC. . ) (POTENT 890 899 N-LINKED GLCNAC. . ) (POTENT 927 897 N-LINKED GLCNAC. . ) (POTENT 927 N-LINKED GLCNAC. . ) (POTENT 927 N-LINKED GLCNAC. . ) (POTENT 927 N-LINKED GLCNAC. . ) (POTENT 927 N-LINKED GLCNAC. . ) (POTENT 1163 A4; 128343 MM; A7A3078489BE332F CRC64;
                                      BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       293
                                                                                                                  DISULFID
DISULFID
DISULFID
                                                                                                                                                                        DISULFID
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                    CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                        DISULFID
                                                            DISULFID
                                                                                                  DISULFID
                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
  CA BIND
                                                                              DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its muse by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@lab.ch).
                                                                                                                                                                                                            Springer T.A., Teplow D.B., Dreyer W.J.;

"Sequence homology of the LFA-1 and Mac-1 leukocyte adhesion
"Sequence homology of the LFA-1 and Mac-1 leukocyte anterferon.";

"Sequence homology of the LFA-1 and Mac-1 leukocyte anterferon.";

Nature 314:540-542(1985).

-!- FUNCTION: INTEGRIN ALPHA-L/BETA-2 IS A RECEPTOR FOR ICAM1, ICAM2, ICAM3 AND ICAM4. IS INVOLVED IN A VARIETY OF IMMUNE PHENOMENA INCLUDING LEUKOCYTE-ENDOTHELIAL CELL INTERACTION, CYTOTOXIC T-CELL WEDIATED KILLING, AND ANTIBODY DEPENDENT KILLING BY GRANULOCYTES AND MONOCYTES. MICE EXPRESSING A NULL MUTATION OF THE ALPHA-L SUBUNIT GENE DEMONSTRATE IMPAIRED TUMOR REJECTION AND IMPAIRED
                                                                                                                                                                                                                                                                                                                                                                                                                   LEUCOCYTES MECKULIMENT.

-!- SUBUNIT: HETERRODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-L

-SUBUNIT: HETERRODIMER OF

-!- SUBUNIT: HETERRODIMER OF

-!- SUBUNIT: HETERRODIMER OF

-!- SUBULITION: Type I membrane protein.

-!- DOMAIN SPECIFICITY: LEHKGYTES.

-!- DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS

WITH I-DOMAINS DO NOT UNDERGO PROFEASE CLEAVAGE.

-!- SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.

-!- SIMILARITY: Contains 7 PGG-GAP repeats.
                                                        MEDLINE=91268576; PubMed=2051027;
Kaufmann Y., Tseng E., Springer T.A.;
"Cloning of the murine lymphocyte function-associated molecule-1
alpha-subunit and its expression in COS cells.";
J. Immunol. 147:369-374 (1991)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE; PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PS50234; VWPA; 1.
Integrin; Call adhasion; Receptor; Glycoprotein; Transmembrane;
Signal; Magnesium; Calcium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INTEGRIN ALPHA-L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VWFA.
FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MGD; MGI:96606; Itgal.
InterPro; IPR000413; Integrin_alpha.
Interpro; IPR002035; VWF A.
Pfam; PF01839; FGAP; 3.
Pfam; PF00057; integrin_A; I.
Pfam; PF00092; VWa; 1.
PRINTS; PR01185; INTEGRINA.
PRINTS; PR01185; INTEGRINA.
PRINTS; PR00191; Int_alpha; 5.
SWART; SM00327; VWA; 1.
                                                                                                                                                                          SEQUENCE OF 24-42.
MEDLINE=85188276; PubMed=3887182;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; M60778; AAA39426.1; -
PIR; IS6126; IS6126.
                                                                                                                                                                                                                                                                                                                                                                                                             LEUCOCYTES RECRUITMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23
1163
1084
1108
1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     573
573
573
573
574
536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P20701; 1LFA.
                                      SEQUENCE FROM N.A.
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24
24
1085
1109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
TRANSMEM
DOMAIN
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REPEAT
CA BIND
CA BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Repeat.
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REPEAT
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHAIN
```

36;

(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).

(POTENTIAL) (POTENTIAL)

(GLCNAC (GLCNAC. (POTENTIAL) . (POTENTIAL) . (POTENTIAL) .

(POTENTIAL)

592

603

::

545

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation-the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
Integrin; Cell adheaion; Receptor; Glycoprotein; Transmembrane; Signal; Repeat; Magnesium;
Calcium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (POTENTIAL)
WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
SIMILARITY: BELONGS TO THE INVESTIN ALPHA CHAIN FAMILY.
SIMILARITY: CONTAINS I VWFA domain.
SIMILARITY: CONTAINS 7 FG-GAP repeats.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INTEGRIN ALPHA-E.
INTEGRIN ALPHA-E LIGHT CHAIN.
INTEGRIN ALPHA-E HEAVY CHAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CYTOPLASMIC (POTENTIAL)
FG-GAP 1.
FG-GAP 2.
X-DOMAIN (EXTRA DOMAIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL.
GLU-RICH (ACIDIC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GFEKR MOTIF.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCNP.
N-LINKED (GLCNP.
N-LINKED (GLCNP.
N-LINKED (GLCNP.
N-LINKED (GLCNP.
N-LINKED (GLCNP.
N-LINKED (GLCNP.
N-LINKED (GLCNP.
N-LINKED (GLCNP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     POTENTIAL.
                                                                                                                                                                                                                                                   HSRB; PI1215; 1ARX.
HSRB; PI1215; 1ARX.
MGD; MGI:1298377; Itgae.
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002035; VWF A.
Pfam; PF001839; PG-GAP; 3.
Pfam; PF001839; PG-GAP; 3.
Pfam; PF00185; integrin_A; 1.
PRINTS; PR01185; INTEGRINA.
SMART; SM00191; Int_alpha; 3.
SMART; SM00191; Int_alpha; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VWFA.
                                                                                                                                                                                                                                       EMBL; U12236; AAC52142.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11144
1644
1644
1644
10023
10023
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
10047
100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19
1167
181
1167
1114
11137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20
1115
1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      884
998
1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISULPID
DISULPID
DISULPID
DISULPID
DISULPID
DISULPID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REPEAT
CA BIND
CA BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHAIN
   SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

SEQUENCE STRAIN=ARR;

MEDINE=25187992; PubMed=7882170;

Kilshaw P.J., Ducharme L.A., Shaw S.K., Parker C.M., Brenner M.B.,

Kilshaw P.J., Weis J.H.;

"Murine M290 integrin expression modulated by mast cell activation.";

"I "Murine M290 integrin ALPHA;

"I "Murine M290 integrin ALPHA;

"I "Murine M290 integrin ALPHA;

"I "Murine M290 integrin ALPHA;

"I "Murine M290 integrin ALPHA;

"I "Murine M290 integrin ALPHA;

"I "Murine M290 integrin ALPHA;

"I "Murine M290 integrin ALPHA;

"I "Murine M290 integrin M20 integrin M20 in THE NUMBERS OF THE ALPHA-E

"I "MIRABPITHELIAL LYMPHOOYTES IN THE GUT AND IN THE BURELORMENT OF

"I "MIRGRIN IN MEDIATING RETENTION OF LYMPHOCYTES IN THE
                                                                                                                                                                                                                                                                                                                                                                                                                              SSE---AEQPCLPGV------QFRCPIVF---RWEILIQVTGTVELSKEIKAS-STLS 1046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1051 IVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITA 1110
                                                                                                                                                                                                                                                          880
                                                                                                                                                                                                                                                                                                                                                                                                         990
                                                                                                              767
                                                                                                                                              779
                                                                                                                                                                                REFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQN 821
                                                                                                                                                                                                                                                                                                                                  939
                                                                                                                                                                                                                                                                                                                                                     EGGIOSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPV 711
                                                                                                                                                                                                                                                                                              887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBDATT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. THE ALPHA SUBUNIT IS COMPOSED OF AN HEAVY AND A LIGHT CHAINS LINKED BY A DISULFIDE BOND. ALPHA-E ASSOCIATES WITH BETA-7.
SUBCELLULAR LOCATION: TYPE I membrane protein.
DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS
                                                            --PHSRMPVSCEEL--TEGSSLLTKTLKCNVSSPIFKAGQEVSLQVMFNTLLNSSWEDFV
RVVVLSSRPVVDVVTELSFSPEEIPVHEVECSYSAREEQKHGVKLKACFRIKPLTPQ--F
                                                                                                          SPIVLRLNFSLV---GTPLSAFGN-LRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSI
                                                                                                                                                                                                         SPARS-----GPLRLMSSASLAVEWTLSNSGEDAYWVRLDLDFPRGLSFRKVEMLQ-
                                                                                                                                                                                                                                                          ORSORSWRLACESASSTEVSGAL-KSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKL
                                                                                                                                                                                                                                                                                                                               LLKANVTSEN-NMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQ
                                                                                                                                                                                                                                                                                                                                                                                                       YOVSNLGORSLPISLVFLVPVRLNQTVIMDRPQ----VTFSENLSS----TCHTKE-RLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               991 SHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTAE MOUSE STANDARD;
06.0677;
01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Integrin alpha-E precursor (Integrin alpha M290).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ALYKLGFFKRQYKDMM-SEGGPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata
Mammalia; Eutheria; Rodentia
                                                                                                                                                                                  TESFMSLDCLVVGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INTESTINAL WALL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                   888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1111
                                  652
                                                                                                                                            721
                                                                                                                                                                                  768
                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                                        822
                                                                                                                                                                                                                                                                                           832
                                                                                                                                                                                                                                                                                                                                 881
                                                                                                                                                                                                                                                                                                                                                                                                       940
                                                                                                                                                                                                                                                                                                                                                                                                                                           948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TAE MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus
                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                    g
                                                                                                        ò
                                                                                                                                                                                ò
                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
```

```
Genome Res. 10:165-173(2000)
                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                     Parker C.M.;
Submitted (MAR-1999) to
                                                                                                                                                                                                                                                                                                                                                                            REVISIONS TO 88-114.
                                                                                                                                                                                                                                                        Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CELL MONOLAYERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Green E.D.;
                                                                                                                                                                                      ITAE HUMAN
                                                                          1026
                                                                                                           1066
                                                                                                                            1096
                                                                                                                                            1120
         919
                         931
                                          972
                                                                                                                                                                    ITAE HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -
                                                                                                                                                                                               ઠે
                                       용
                                                          ઠે
                                                                     용
                                                                                         ઠે
                                                                                                           음
                                                                                                                           ઠે
                                                                                                                                         셤
                                                   43;
                                                                                                                                                                                                                                         309
                                                                                                                                                                                                                                                         372
                                                                                                                                                                                                       249
                                                                                                                                                                                                                                                                                           429
                                                                                                                                                                                                                                                                                                           425
                                                                                                                                                                                                                                                                                                                           488
                                                                                                                                                                                                                                                                                                                                            482
                                                                                                                                                                                                                                                                                                                                                           547
                                                                                                                                                                                                                                                                                                                                                                            536
                                                                                                                                                                                                                                                                                                                                                                                             909
                                                                                                                                                                                                                                                                                                                                                                                                              596
                                                                                                                                                                                                                                                                                                                                                                                                                              665
                                                                                                                                                                                                                                                                                                                                                                                                                                               653
                                                                                                                                                                                                                                                                                                                                                                                                                                                               715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     930
                                                                                                   109
                                                                                                              189
                                                                                                                                                                                       252
                                                                                                                                                                                                                       312
                                                                                                                                                                                                                                                                          367
                                                                                                                                      131
                                                                   52
                                                                                   74
                                                                                   FINDVDWAWVTALQPGAPAVLSSLLHLDPSN-----NQTCLLVARRSSNRNTAALYRCAI
                                                                                                                                                                                ONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLLTDGEKFGDP
                                                                                                                                                                                                                LGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQINNFEALKTIQ
                                                                                                                                                                                                                                                  LNLTTVINSPKMQGVVRPAIGVGDRFKNNNTYRELKLIASDPKEAHTFKVTNYSALDGLL
                                                                                                                                                                                                                                                                          NOLREKIFALEGTOTGSSSSFEHEMSOEGFSAALTSNGP-LLSTVGSYDWAGGVFLY-TS
                                                                                                                                                                                                                                                                                   SKLQQRIVHMEGT---VGPALQYQLAQTGFSAQILDKGQVLLGTVGAFNWSGGALLYSTQ
                                                                                                                                                                                                                                                                                                           KEKSTFINMT-RVDS-DMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGM
                                                                                                                                                                                                                                                                                                                     GQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP-----GBEDNRGA
                                                                                                                                                                                                                                                                                                                                                                                      548 -QDASFSLAHTLSGHPGLTNSRFGFAMANGDINQDKFTDVAIGAPLEGFGAGDGASYGS
                                                                                                                                                                                                                                                                                                                                                                                                               VYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLL
                                                                                                                                                                                                                                                                                                                                                                                                                       LRSQPVLRVKAIMEFNPRÉVARNVFECNDQVVKGKEAGEVRVCLHVQKS---TRDRLREG
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ----DALPMVFIGKM--DVNLCFEVDSSVVASEPGLREM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTC--------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ----TKORORLOCEDSSGCOSCLRKWNGGSFLCEHFWLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  697 ETLKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLR----PVLAEDAQRLFTALF--P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEKNCGNDN1 CODDLS 1 TFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LSYRKVSTLONORSORSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOFKKI------OKPVSPDVQCDDPKPV---ASVLVMNCKIGHPIL-KRSSVNVSVTWQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASE
                                                                   FNLDTENA--MTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGS-----LYQCDY
                                                                                                   STGSCEPIRLQVPVEAVNMSLGLSLAATT--SPPQLLAC-GPTVHQTCSENTYVKGLCFL
                                                                                                                                      --- PQE
                                                                                                                                                      LTPNLDLQAQAYFSDLEGFLDPGAHVDSGDYCRSKGGSTGEEKKSARRRTVEEEDEEED
                                                                                                                                                                       DSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQL--KKSKTLFSLMQYSEBFRIHFTFKEF
                                                                                                                                                                                                                                                                                                                                            WESNA----NVKGTQIGAY#GASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPR
                                                   Gaps
N-LINKED (GLCNAC. .) (POTENTIAL)
N-LINKED (GLCNAC. .) (POTENTIAL)
M; BB331C11SDCCCFFD CRC64;
                                   Length 1167;
                                                   Indela
                                   DB 1;
                                                   459;
                                          2e-70;
                                                  Mismatches
                                  Score 1148.5;
Pred. No. 2e-7
                                                   Conservative 214;
                                  19.5%;
                  128983
                                                                                                                                      FGSNLRQQPQKFPEALRG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  716 FLNFTVDVDV-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                               LRSRPVVDLTVSMTFTP-
                  Ä
                                          Similarity
 1055
1086
1167
                                                   355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   811
CARBOHYD
CARBOHYD
SEQUENCE
                                                                                                                                                      133
                                                                                                                                                                                                                                         250
                                                                                                                                                                                                                                                                           310
                                                                                                                                                                                                                                                                                           373
                                                                                                                                                                                                                                                                                                           368
                                                                                                                                                                                                                                                                                                                           430
                                                                                                                                                                                                                                                                                                                                                                                                                               607
                                                                                                                                                                                                                                                                                                                                                                                                                                                597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      871
                                                                                   20
                                                                                                                                     110
                                                                                                                                                                                       193
                                                                                                                                                                                                       190
                                                                                                                                                                                                                       253
                                                                                                                                                                                                                                                         313
                                                                                                                                                                                                                                                                                                                                            426
                                                                                                                                                                                                                                                                                                                                                                             483
                                                                                                                                                                                                                                                                                                                                                                                                               537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  761
                                                                                                    53
                                                                                                                    75
                                                                                                                                                                       132
                                  Query Match
Best Local
                                           Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
 FT
                                                                                q
                                                                                                                   셤
                                                                                                                                                 g
                                                                                                                                                                   8 8 8
                                                                                                                                                                                                                   8 8
                                                                                                                                                                                                                                                    Ωp
                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                      8 6 8
                                                                                                                                                                                                                                                                                                                                      8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                          ያ ያ
                                                                                                                                                                                                                                                                                                                                                                                                                                          8 &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              $ 8 $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                   ò
                                                                                                                                    ò
```

```
1025
                                                                                                                                                                                                                            1045
                                                                                                                                                                                                                                                                                                                                                                                                                 HTKQLLRDVSELPILGEISFNKSLYEGLNAE-----NHRTKITVIFLKEEETRSLPLII 1119
                                                                                                 985
                                 971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 E-CADHERIN. IN TO EPITHELIAL
EESVFPNRTADITVTISNSNEKSLARETR---SLQFRHAFIAVLSR--PSVMYMN--TSQ
                                                                                                 NTSRVMQHQYQVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSST-----CHT
                                                                                                                                                             SPSDHKEFFFNVHGENLFGAVFQLQICVPIKLQDF-----QIVRVKNLTKTQDHTECTQ
                                                                                                                                                                                                                            KERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTS
                                                                                                                                                                                                                                                                        ---TSNKENVTVAAEISVG
                                                                                                                                                                                                                                                                                                                                                        HNHLLIVSTA-----EILFNDSVFTLLPGQGAFVRSQTETKVEPF----EVPNPLPLIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF 53-1179 FROM N.A.
TISSUE-Fetal kidney;
MEDLINE=20138496; PubMed=10673275;
MEDLINE=20138496; PubMed=10673275;
TOuchman J.W., Anikster Y., Dietrich N.L., Maduro V.V., McDowell G., Shotelersuk V., Bouffard G.G., Beckstrom-Sternberg S.M., Gahl W.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Parker C.M.; "Molecular cloning of the human mucosal lymphocyte integrin alpha "Molecular cloning of the human for setticted RNA distribution."; J. Biol. Chem. 269:6016-6025(1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "The genomic region encompassing the nephropathic cystinosis gene (CTNS): complete sequencing of a 200-kb segment and discovery of a novel gene within the common cystinosis-causing deletion.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MUTAGENESIS OF ASP-109 AND PHE-316.
MEDLINE=20400502; PubMed=10837471;
MIDJINE J.M.H., Cernadas M., Tan K., Irie A., Wang J.-H., Takada Brenner M.B.;
"The role of alpha and beta chains in ligand recognition by beta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ΒY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              antigen) (HML-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. THE A SUBUNIT IS COMPOSED OF AN HEAVY AND A LICHT CHAINS LINKED DISULFIDE BOND. ALPHA-E ASSOCIATES WITH BETA-7.
SUBCELLULAR LOCATION: Type I membrane protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Brenner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    integrins.";
J. Biol. Chem. 275:25652-25664(2000).
J. Biol. RECEPTOR ALPHA-E/BETA-7 IS A RECEPTOR FOR MEDIATES ADHESION OF INTRA-EPITHELIAL T-LYMPHOCYTES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A., AND SEQUENCE OF 19-38 AND 179-188. TISSUELackmenia, and Lymphocytee; MEDLINE-84164962; PubMed-8119947; Shaw S.K., Cepek K.L., Murphy E.A., Russell G.J., Brer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P1870, OSNZU9;
01-OCT-1994 (Rel. 30, Created)
30-MAY-2000 (Rel. 39, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Integrin alpha-E precursor (Mucosal lymphocyte-1
antigen) (CD103 antigen) (Integrin alpha-IEL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GSSVGGLLLLALITAALYKLGFFKRQYKDMMSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1179
                                                                                                                                                                                                                                                                        SQEPACGSDPVQHVKEWHSVVCAI-----
```

39;

117

95

164

224

284 354 344 398 471 456

```
45 GSLYQCDYSTGS--CEPI-RLQVP-----VEAVNMSLGLSLAATTSPPQLLACGPTVHQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      235 KCFECNFALVQYGGVIQTEFDLRDSQDVMASLARVQNITQVGSVTKTASAMQHVLDSIFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NTVASKPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 345 SNGP-LLSTVGSYDWAGGVFLY-TSKEKSTFINMTRVDSDMNDA----YLGYAAAIILRN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DERQVILGAVGAFDWSGGALLYDTRSRRGRFLNQTAAAAADAEAAQYSYLGYAVAVLHKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     472 CSLSYVAGAPQYKHHG--AVFELQKEGREASFLPVLEGEQMGSYFGSELCPVDIDMDGST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       517 GDKLTDVAIGAP----GEEDNR--GAVYLFHGTSGSGISPSHSORIAGSKLSPRLOYFGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           631 KEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               691 GLTQTCETLKLQLPN----CIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120 KFPEALRGCPQED-----SDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQL--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       225 ITNGARKNAFKILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 399 RVQSLVLGAPRYQHIGLVAMFR-QNTGMWESNANV-KGTQIGAYFGASLCSVDVDSNGST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DFLLVAAPFYHVHGEEGRVYVYRLSE-QDGSFSLARILSGHPGFTNARFGFAMAAMGDLS
                    (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                        D-AR: LOSS OF E-CADHERIN BINDING.
F-AR: LOSS OF E-CADHERIN BINDING.
V -> I (IN REF. 3).
Q -> R (IN REF. 3).
R -> W (IN REF. 3).
A -> V (IN REF. 3).
B -> V (IN REF. 3).
                                                                                                                                                                                                                                                                                                                                                                                               Indels 172;
                                                                                                                                                                                                                                                                                                                                                      Match
Local Similarity 28.9%; Pred. No. 7.7e-70;
tes 340; Conservative 214; Mismatches 451; Indels 172
                                                                                                (GLCNAC.
                    (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                  D -> E.
/FTId=VAR_008884
                                                                                                                                                           C -> S.
/FTId=VAR 008885.
  (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  96 TCSENTYVKGLCFLFGSNLRQQPQ-----
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
D-> E.
                                                                                                                                                                                                                                                                                                                   130088
                                                                                                                                                                                                                                                     482
950
1019
                                    934
954
1065
1096
360
                                                                                                                                                         1041
                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                     482
950
1019
1179
                                                                                                                                                         1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       571
                                                       CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                            MUTAGEN
MUTAGEN
CONFLICT
CONFLICT
CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         869
                    CARBOHYD
                                                                                                                VARIANT
                                                                                                                                                         VARIANT
                                                                                                                                                                                                                                                                                                                                                                          Best Loca.
Matches
  유
                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch)
                                                   DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
SIMILARITY: CONTAINS 1 VFFA domain.
SIMILARITY: CONTAINS 7 VFF GAPA repeats.
DATABASE: NAME=PROW; NOTE=CD guide CD103 entry;
WWW="http://www.ncbi.nlm.nih.gov/prow/cd/cd103.htm".
  SPECIFICITY: EXPRESSED ON A SUBCLASS OF T-LYMPHOCYTES KNOWN
                AS INTRA-EPITHELIAL LYMPHOCYTES WHICH ARE LOCATED BETWEEN MUCOSAL EPITHELIAL CELLS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MIM; 604682; -. Government of the complex; TAS. GO; 0008305; C: integrin complex; TAS. GO; 0004895; F: cell adhesion receptor activity; TAS. InterPro; IPR000413; Integrin alpha. InterPro; IPR00235; VWF.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CYTOPLASMIC (POTENTIAL)
GLU-RICH (ACIDIC).
FG-GAP 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               X-DOMAIN (EXTRA DOMAIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP
                                                                                                                                                                                                                                                                                                                                                                      EMBL, L25851; AAB59359.2; -. EMBL, AF168787; AAF43107.1; -. PIR; A53213; A53213. A53213. Genew; HSSP; PIL215; LA8X. Genew; HGNC:6147; ITGAE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           662
1154
79
159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              321
444
726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             573
641
522
586
586
654
61150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DISULPID
DISULPID
DISULPID
DISULPID
DISULPID
DISULPID
DISULPID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REPEAT
DOMAIN
DOMAIN
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
CA BIND
CA BIND
CA BIND
```

647

```
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                                                                                                                        DISULFID
                                                                                                                                                                                                                                                                                                                       DISULPID
                                                                                                                                                                                                                                                                                                                                             DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                              REPEAT
REPEAT
CA BIND
CA BIND
CA BIND
                                                                                                                                                                                                                                                                              DISULFID
                                                                                                                                                                                                                                                                                                              DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                    DOMAIN
REPEAT
REPEAT
                                                                                                                                                                     DOMAIN
                                                                                                                                                                                         REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                      978 NLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLS 1037
                                                                                                                                                                                                                          ---AEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPL 1091
                                                                                                           747 ALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFF 806
                      ASSOCIATES WITH BETA-1.

-!- SUBCELLULAR LOCATION: Type I membrane protein.

-!- SUBCELLULAR LOCATION: Type I membrane protein.

-!- DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.

-!- SIMILARITY: EDLONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.

-!- SIMILARITY: CONCLAINS 7 FG-GAP repeats.

-!- DATABASE: NAME=PROW; NOTE=CD guide CD49a entry;

WWW="http://www.ncbi.nlm.nih.gov/prow/cd/cd49a.htm".

PIR; A45226; A45226.

PDB; 10C5; 17-MAY-00.

Genew; HGNC:6134; ITGA1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.

MEDLINE=93155124; PubMed=8428973;

Briseswitz R., Epstein M.R., Marcantonio E.E.;

Briseswitz R., Epstein M.R., Marcantonio E.E.;

Briseswitz R., Epstein M.R., Marcantonio E.E.;

I subunit...;

J. Biol. Chem. 268:2989-2996(1993).

-! FUNCTION: INTEGRIN ALPHA-1/BETA-1 IS A RECEPTOR FOR LAMININ AND COLLAGEN. IT RECOGNIZES THE PROLINE-HYDROXYLATED SEQUENCE G-F-P-G-E-R IN COLLAGEN.
                                                                                                                                                                                                      1029 ASTVCTWSQERACAYSS-VQHVEEWHSVSCVIA------SDKENVTVAAEIS
                                                                 TFDVDSKASLGNKLLLKANVTSENN----MPRTNKTEFQ----LELPVKYAVYMVVTSHGV
                                                   FPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNI
                                                                                                                                                                                                                                                                                                                                                                                                                                  Craniata, Vertebrata, Euteleostomi,
Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                              01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
Integrin alpha-1 (Laminin and Collagen receptor) (VLA-1) (CD49a)
ITGA1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minn, 15.200. (integrin complex; TAS. GO: 00001305; C:integrin complex; TAS. GO: 00004895; F:cell adhesion receptor activity; NAS. GO: 0000518; F:cellagen binding activity; TAS. GO: 00007160; P:cell-matrix adhesion; NAS. Integrin alpha. Integrin alpha. Integrin alpha.
                                                                                                                                                                                                                                                                                  |:|: ||||||:| || ||:| ||||||:|: || PIIIKGSVGGLLVLIVILVILFKCGFFKRKYQQLNLE 1162
                                                                                                                                                                                                                                                                      PLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                PRT; 1151 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                            FDWYIKTSHNHLLIVST --
                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                               ITA1 HUMAN
P56199;
                                                                                                                                                                                                                            1038
                                                                                                                                                                                                                                                                       1092
                                                                                                                                                                                                                                                                                          1126
                                                    807
                                                                                                                                                                                                                                                                                                                                      ITA1 HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>:</u>
                                                                                                                                                                                                                                                                                                                            RESULT
                                                                                                                                                           셤
                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                        ò
                                                                                                                                                                                 ò
                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                     ò
                                                                        g
                                                                                              ò
                                                   ò
```

```
44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       57 CEP-IRLOVPVEA------VNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGL 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 FNLDTENAMTFQENARG-FGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQCDYSTGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                         (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18.6%; Score 1093.5; DB 1; Length 1151;
llarity 27.8%; Pred. No. 1.1e-66;
Conservative 206; Mismatches 487; Indels 203;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                         (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                       (POTENTIAL)
                                                                                            Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane; Repeat; Calcium; Magnesium; 3D-structure.

1 1113 EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       POTENTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          POTENTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  POTENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          POTENT1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               POTENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 127837 MW; 6B3F3C1AABF52808 CRC64;
                                                                                                                            POTENTIAL. CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                (GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                    (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                         (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                         GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                             (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                              (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GLCNAC
                                                                                                                                                                                                                                                                 GFFKR MOTIF.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCM.
N-LINKED (GLCM.
N-LINKED (GLCM.
                                                                                                                                                                    VWFA.
FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
FG-GAT 1AL.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                              N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                             N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                         N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-LINKED
                              PRINTS; PRO1185; INTEGRINA.
PRINTS; PR00453; VWFADOMAIN.
SWART; SM00191; Int_alpha; 5.
SWART; SM00327; VWA; 1.
PROSITE; PS00242; INTEGRIN_ALPHA; 1.
Pfam; PF01839; FG-GAP; 3.
Pfam; PF00357; integrin_A; 1.
Pfam; PF00092; vwa; 1.
                                                                                                                                                                                                                                                                                                                                                                         77
84
1189
2289
3313
374
432
504
671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1045
1055
1074
1085
                                                                                                                                                                                                                                                                                                728
786
858
858
1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1045
1055
1074
1085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Sim
Matches 345;
```

```
LTIRGEL-----RSENASLVLSSSN------OKRELAIQISKDGLPG 1110
                                                                                                                                                                                                                               388
                                                                                                                                                                                                                                                           408
                                                                                                                                                                                                                                                                                        447
                                                                                                                                                                                                                                                                                                                   468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         968
                                                                                                                 276
                                                                                                                                                                                                                                                                                                                                                                                                                                  587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                               491
                 CSDVSPTFQVVNSIAP--VQECSTQ-LDIVIVLDGSNSIYPWDS-----VTAFLNDLLK
                                                                                                                                                                                                                                                                                                        SCTTENKNEPCGARFGTAIAAVKDLNLDGFNDIVIGAPLEDDHGGAVYIYHG-SGKTIRK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EYAQRIPSGGDGKTLKFFGQSIHGEMDLNGDGLTDVTIGGLGGAALFWSRDVAVVKVTWN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LRQISRSFFSGTQERKVQRNITVRKSEC----TKHSFYMLDKHDFQDSVR---ITLDFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               :: :: | |:: :::||: KMTTSTD---HLKRGTILDGNTCKFATITCNLTSSDISQVNVSLILWKPTFIKSYFSSLN
CFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKK
                                                                                                               RELFNITNGARKNAFKILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFR---
                                                                                                                                 SOEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKE----KSTF-INMTRVDSDMNDAYL
                                                                                                                                                                                                                                                                                                                                               ------YEQTR-GGQVSVCPLPRGQRARWQCD
                                                                                                                                                                                                                                                                                                                                                               668 GRPHSRAVFNET-----KNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGN-KLLLKANVTSENNMPRTNKTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         910 VNISIPVKYEVGLQFYS-SASEYHISIAANETVPEVINSTEDIGNEINIFYLIRKSGSFP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  969 MPELKLSISFPNMTSNGYPVLYPTGLSS-----SENANCRPHIFEDPFSINSGK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATLKGNLSFDWY1KTSHNHULIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPN
                                                                                   RMDIGPKOTOVGIVOYGENVTHEFNLNKYSSTEEVLVAAKKIVORGGROTMTALGTDTAR
                                                                                                                                                                       --SEKSRQELNTVASKPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEM
                                                                                                                                                                                                                                                          SÓTGFSAHYSODWVMLGAVGAYDWNGTVVMQKASOIIIPRNTTFNVESTKKNEPL-ASYL
                                                                                                                                                                                                                                                                                      GYAAAIILRNRVQSL-VLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCS
                                                                                                                                                                                                                                                                                                                                                                                                      AVLYGEQGQPWG-RFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISP
                                                                                                                                                                                                                                                                                                                                                                                                                                                               SHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FNPREVARNVFECNDQVVKGKEAG--EVRVCLHVQ-KSTRDRLREGQIQSVVTYDLALDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRE-FNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ----HNITCKVGYPFLRRGEMVTFKILFOFNTSYLMENVTIYLSATSDSEEPPETLSDNV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN-----LGQRS----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VPVRLNOTVIWDRPQVTFSENLSSTCHTKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQE-------
                                                        ----SKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1090 PLPL--IVGSSVGGLLLLAUITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                              VDVDSNGSTDLVLIGAPHY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ---LPISLVF----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
107
                                                        167
                                                                                                               220
                                                                                                                                            231
                                                                                                                                                                       277
                                                                                                                                                                                                   290
                                                                                                                                                                                                                               335
                                                                                                                                                                                                                                                          350
                                                                                                                                                                                                                                                                                      389
                                                                                                                                                                                                                                                                                                                   409
                                                                                                                                                                                                                                                                                                                                               448
                                                                                                                                                                                                                                                                                                                                                                                                                                 529
                                                                                                                                                                                                                                                                                                                                                                                                                                                               551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     950
                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ठं है ठं
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                  g
                                                                                                            ò
                                                                                                                                       a
                                                                                                                                                                       ð
                                                                                                                                                                                           a
                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
ઠે
                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMEL outstation the European Bioinformatics Institute. There are no restrictions on its most by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                            TISSUE=Fetal heart, and Osteoblast;
MEDLINES99417678; PubMed=10486209;
Lebnert K., Ni J., Leung E., Gough S.M., Weaver A., Yao W.P., Liu D.,
Wang S.-X., Morris C.M., Krissansen G.W.;
"Cloning, sequence analysis, and chromosomal localization of the novel
human integrin alphali subunit (ITGAll).";
Genomics 60:179-187(1999).
                                                                                                                                                                                                                                                                                                                                                           TISSUE=Fetal muscle, and Uterus;
MEDLINE=99395147; PubMed=10464311;
Velling T., Kusche-Gullberg M., Sejersen T., Gullberg D.;
"CDNA Cloning and Chromosomal Localization of Human alpha(11)
Integrin. A collagen-binding, i domain-containing, beta(1)-associated integrin apresent in muscle tissues.";
J. Baol. Chem. 274:25735-25742(1999).
                                                                                                                                                                            Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Eutel
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo
Q9UKĀS; Q9UKQ1;
16-0CT-2001 (Rel. 40, Created)
16-0CT-2001 (Rel. 40, Last sequence update)
16-PEB-2003 (Rel. 41, Last annotation update)
Integrin alpha-11 precursor.
                                                                              $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GO:0008305; C:integrin complex; TAS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; AF109681; AAF01258.1; -...
EMBL; AF1378; AAD51919.2; -...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 954-1188 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Genew; HGNC:6136; ITGAll.
                                                                           STANDARD;
                                                                                                                                                                   Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IISSUE=Fibroblast;
                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HSSP; P17301; 1AOX
                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                     NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    604789
                                                                            HUMAN
              윱
```

```
253 AFQ--KGGRKGAKKVMIVITDGESHDSP-DLEKVIQQSERDNVTRYAVAVLGYYNRRGIN 309
                                                                                                                                                                                                                                                                                                                                                                                 369 TGFSSHVVEDGVILGAVGAYDWNGAVLKETSAGKVIPLRESYLKEFPEELKNHGAYLGYT 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VDSNGSTDLVLIGAPHYYEQTR-GGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAA 508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     819 AYTLSFDTTVFIIESTRÖRVAVEATLENRGENAYSTVLNISQSANLQF--ASLIQKEDSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GS--IECVNEER-----RLOXQVCNVSYPFFRAKAKVAFRLDFEF-SKSIFLHHLEIELA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GOSLSGGODLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVF--ECNDQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                574 AVFNETKNS-TRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AHLDEGGDRFTNRAVLLSSGQELCERINFHVLD-TADYVKPVTFSVEYSLEDP-----D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SITESEMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              386 VISENNMPRINKIE--FQLELPVKYAVYMVVISHGVSIKY---LNFIAS--ENTSRVMQH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QYOVSNLGQ---RSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTC----HTKERLPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          509 LIVLGDVNGDKLIDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSORIAGSKLSPRLQYF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     759 HGPMLDDGWPTTLRVSVPFWNGCNEDEHCVPDLVLDARSDLPTAMEYCQRVLRKPAQDCS
                 FNLDTENAMTFQENARG-FGQSVVQ--LQGSR-VVVGAPQEIVAANQRGSLYQCDYSTGS
                                     CEPIRL-----QVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLF
                                                                                                         143 NSNFRFSKTVAP-ALQRC-QTYMDIVIVLDGSNSIYP-------WEVQHFLINILKKF
                                                                                                                                                                                                                                                      193 YIGPGQIQVGVVQYGEDVVHEFHLNDYRSVKDVVEAASHIEQRGGTETRTAFGIEFARSE
                                                                                                                                                                                                                                                                                            LFNITNGARKNAFKILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVIGV-----GDAFR
                                                                                                                                                                                                                                                                                                                                                                277 SEKSROELNTVASKPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                  EGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEK----STFINMTRVDSDMNDAYLGYA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAIILRNRV-QSLVLGAPRYQHIGLVAMF-RQNTGMWESNANVKGTQIGAYFGASLCSVD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              627 VVKGKEAGEVRVCL-----HVQKSTRDRLREGQIQSVVTYDLALDSGRPHSR
                                                                                                                                                      111 GSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVST---VMEQLKK-
                                                                                                                                                                                                                        ----SKTLFSLMQYSEEPRIHFTFKEFQNNPNPRSLIKPITQLLG-RTHTATGLRKVVRE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LRPVLAEDAQRLFTALFPFEKNCGNDNICQDDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    939
                                                                                    57
                                                                                                                       83
                                                                                                                                                                                                                          167
                                                                                                                                                                                                                                                                                            222
                                                                                                                                                                                                                                                                                                                                                                                                                                    337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          È
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ર્જ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ર્જ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                     ઠે
                                                                                                              용
                                                                                                                                                  ठे
                                                                                                                                                                                  셤
                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                 용
                                                                                                                                                                                                                                                                                 ठे
                                                                                                                                                                                                                                                                                                                      유
                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
GO; GO: 0004895; F:cell adhesion receptor activity; TAS.

R GO; GO:0005518; F:cell adhesion receptor activity; TAS.

GO; GO:000716; P:cell-matrix adhesion; TAS.

R GO; GO:0007517; P:muscle development; TAS.

R InterPro; IPR002035; VWF A.

R Pfam; PF01895; FG-GAP; J.

R Pfam; PR01995; VWF A.

R PRINTS; PR00191; Int. alpha; A.

R SWART; SW00191; Int. alpha; S.

R PROSITE; PS00242; VWFADNAIN.

R PROSITE; PS00242; VWFADNAIN.

R PROSITE; PS00242; INTEGRIN ALPHA; FALSE_NEG.

R PROSITE; PS00242; VWFADNAIN.

R PROSITE; PS00242; VWFA; 1.

R PROSITE; PS00242; VWFA; 1.

R PROSITE; PS00242; INTEGRIN ALPHA; FALSE_NEG.

R PROSITE; PS00242; INTEGRIN ALPHA; FALSE_NEG.

R PROSITE; PS00242; INTEGRIN ALPHA; FALSE_NEG.

R PROSITE; PS00242; INTEGRIN ALPHA; FALSE_NEG.

R PROSITE; PS00242; VWFA; 1.

R PROSITE; PS00242; VWFA; 1.

R PROSITE; PS00242; VWFA; 1.

R PROSITE; PS00242; VWFA; 1.

R PROSITE; PS00244; VWFA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
18.4%; Score 1084.5; DB 1; Length 1189;
Best Local Similarity 28.2%; Pred. No. 4.9e-66;
Matches 349; Conservative 210; Mismatches 500; Indels 179;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MW; 60303C08A4A4CD52 CRC64;
                                                                                                                                                                                                                                                                                               INTEGRIN ALPHA-11.
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                 POTENTIAL.
CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ! -> L.
/FTId=VAR_009890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FTIG=VAR_009891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FTId=VAR_009892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FTIG=VAR_009893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FTIG=VAR_009889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FTIG=VAR 009894
                                                                                                                                                                                                                                                                                                                                                                 FG-GAP 1.
FG-GAP 2.
WFA.
FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
FG-GAP 8.
F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1189 AA; 133609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       653
11162
11177
11177
6628
6688
7668
893
893
823
823
823
844
8462
642
642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1030
                                                                                                                                                                                                                                                                                               1189
1142
1165
1189
94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                972
                                                                                                                                                                                                                                                                                             CHAIN
DOMAIN
TRANSMEM
DOMAIN
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
DOMAIN
CA_BIND
CA_BIND
CA_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /ARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /ARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /ARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REPEAT
     DDRR NO DDRR NO DDRR NO DDRR NO DDRR NO DDRR NO DDRR NO DDRR NO DDRR NO DDRR NO DDRR NO DDRR NO DDRR NO DDRR N
```

568

604

336

391

221 252 449

626 629 673 705 732 765 818 825 876 885 928 938

```
Integrin; (Platelet; SNON TER
                                                                                                                                                                                                                         DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                        DISULFID
DISULFID
DISULFID
                                                    DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                              CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                     CA BIND
CA BIND
CA BIND
                                                                                                                                                                                                                                                                                                                                                                                                                      VARIANT
VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                             VARIANT
                      NON TER
SIGNAL
                                                                                              REPEAT
DOMAIN
                                                                         DOMAIN
                                                                                     REPEAT
                                                                                                                             REPEAT
                                                                                                                                                   REPEAT
                                                                                                                                                           REPEAT
  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch)
                                                      1102 MKIMVNAALQRQFH-SPF----IFREEDPSRQIVFEISKQEDWQVPIMIVGSTLG 1152
HSDFLAELRKAPVVNCSIAVÇQRIQCDIPFFGIQEEFNATLKGNLSFDWY----IKTSH 1046
            1048 PVE--EDLRRAPQLAHSNSDVVSINCNIRLVP-NQEINFHLLGNL---WLRSLKALKYKS 1101
                                                                                                                                                                                                                                                                                                          EXTRACELLULAR MATRIX.
SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-2
ASSOCIATES WITH BETA-1.
SUBCELLULAR LOCATION: TYPE I membrane protein.
DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
SIMILARITY: CONTAINS 1 FG-GAP repeats.
                                         1047 NHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPN-----PLPLIVGSSVG
                                                                                                                                                                             01-0CT-1996 (Rel. 34, Created)
01-0CT-1996 (Rel. 34, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Integrin alpha-2 precursor (Platelet membrane glycoprotein Ia) (GPIa)
(Collagen receptor) (VLA-2 alpha chain) (CD49b) (Fragment).
                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Bovinae; Bos.
                                                                                 GLLLLALITAALYKLGFFK- RQYKDMMSEGGPPGAEP 1136
                                                                                              PRT; 1170 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRINTS) PRO1185; INTEGRINA.
PRINTS; PRO0453; VWFADOMAIN.
SWART; SM00191; Int alpha; 5.
SWART; SM00127; VWA; 1.
PROSITE; PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002035; VWF A.
Pfam; PF01839; FG-GAP; 3.
Pfam; PF00357; Integrin_A; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; L25886; AAB59255.1; -. PIR; I45914; I45914.
                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam; PF00092; vwa; 1
                                                                                                                                                                                                                                               Bos taurus (Bovine).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HSSP: P17301; 1AOX
                                                                                                                                                                                                                                                                                         NCBI_TaxID=9913;
                                                                                                                                                          ITA2 BOVIN
P53710;
                                                                                  1101
                                                                                                      1153
                  g
                                                             요
                                                                                 ò
                                                                                                    a
                                                                                                                                                                     ò
```

```
47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    139 SDVSPDF-QLRTSFAPAVQTCP-SFIDVVVVCDESNSIYPWD--AVKNFLEKFVQGLDIG 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                277 SEKSRQELNTVASKPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQ 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               337 EGFSAAIT--SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT--RVDSDMN-DAYLGYA 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               166 KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLL----GRTHTATGLRKVVRE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     195 PTKTQMGLIQYANNPRVVFNLNTFKSKD---EMIKATSQTFQYGGDLTNTFKAIQYARDT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  222 LFNITNGARKNAFKILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVIGV-----GDAFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         108 FLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLK--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           55 GSCEPIRLQ-----VPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 18.2%; Score 1071; DB 1; Length 1170;
Best Local Similarity 27.4%; Pred. No. 4e-65;
Matches 333; Conservative 219; Mismatches 495; Indels 168; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 FNLDTENAMTFQ-ENARGFGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQC--DYST
                                                                                                                                                                                                                                                                                                                                                                                                                                                         (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
Cell adhesion; Receptor; Glycoprotein; Transmembrane;
Signal; Repeat; Polymorphism; Calcium; Magnesium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL)
                                                                                                                                                                                                                                                                                                  CELL ATTACHMENT SITE (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EECEFICSF2448FB1 CRC64;
                                                            INTEGRIN ALPHA-2.
EXTRACELLULAR (POTENTIAL)
                                                                                           POTENTIAL.
CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                           (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GLCNAC
                                                                                                                                                                                                                                                                                                                           BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCNA
N-LINKED (GLCNA
N-LINKED (GLCNA
N-LINKED (GLCNA
N-LINKED (GLCNA
N-LINKED (GLCNA
N-LINKED (GLCNA
N-LINKED (GLCNA
N-LINKED (GLCNA
N-LINKED (GLCNA
N-LINKED (GLCNA
N-LINKED (GLCNA
N-LINKED (GLCNA
                                                                                                                                                                                                                                                 POTENTIAL.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                   GFFKR MOTI
                                                                                                                          FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                     FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   128929 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   945
1063
1070
580
588
                                             1170
11121
11143
11170
                                                                                                                                                                                                                                                                                               474
1150
81
726
784
865
1039
                                                                                                                                                                                                                                                                                                                                                                                                                                         101
421
4421
688
                                                                                                                                                        367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1170 AA;
```

```
1110
                                                                                                                                                                                                                                                                                                                                                                   1030
                                                                                                                                                                                                                                                                                                                                                                                                                               LRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEI- 1057
                                                                                                                                                                                                                                                  848
                                                                                                                                                                                                                                                                                                                   958
                                                                                                                                                                                                                                                                                    908
                                                                                                                                                                                                                                                                                                   923
                                                                                                                                                                                                 756
                                                                                                                                                                                                                  789
                                                                                                                                                                                                                                                                  864
                                                                                                                          677
                                                                                                                                                                707
                                                                                                                                                                                  733
                                484
                                                 503
                                                                 541
                                                                                                                 621
                                                                                 RFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGS--KL 561
                                                                                                                                                                                                                                                                                                                                                                                               ---SGRPHSRAVFN
                                                                                                                                                            ETKNSTRRQTQVLGLTQTCB - - TLKLQLPNCIEDPVSPIVLRLNFSL - - VGTPLSAFGNL
                                                                                                                                                                                              ENNERCLOKTMIVSQAQRCSEYIIHIQEPS---DIISPLNLCMNISLENPGT-----
                                                                                                                                                                                                                                  NPALEAYSETVKVFSIPFHKDCGDDGVCISDLVLNVQQLPATQQQPFIVSNQMKRLTFSV
                                                                                                                                                                                                                                                    TVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASST-EVSGALKSTS
                                                                                                                                                                                                                                                            CSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKY
                                                                                                                                                                                                                                                                                            AVYMVVTSHGVSTKYLNFTÅSENTSRVMQHQYQVSNLGQR-----SLPISLVFLV
                                                                                                                                                                                                                                                                                                                                   DAEIHIT-RSTNINFYEVSLDGNVSSVV-HSFE--DIGPKFIFSIKVTTGSVPVSMA---
                                                                                                                                                                                                                                                                                                                                                    PVRLNQTVIWDRPQVTFSEN---LSSTCHTKE-------RLPSHSDFLAE-
                                                                                                                                                                                                                                                                                                                                                                    ----SVIIHIPQYTKDKNPLMYLTGVHTDQAGDISCEAEINPLKIGQTSSSVSFKSEN
                                                                                                                                                                                                                                                                                                                                                                                                                     LFNDSVFTL-----LPGQGAFVRSQTETKVEPFE-VPNPLPLIVGSSVGGLLLLALITA
                                                          SPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVF
                                                                                                                                                                                                                  RPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITF----SFMSLDCLVVGGPREFNVTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       glycoprotein Ia) (GPIa)
370 VGFSAEYSPQNNILMLGAVGAYDWSGTVVQKTPHGHLIFSKQAFEQILQDRNHSSYLGYS
                          CSVDVDSNGSTDLVLIGAPHYYEQTR - - GGQVSVCPLPRGQRARWQCDAVLYGEQGQPWG
                AAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANV-----KGTQIGAYFGASL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata, Vertebrata, Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                  ECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALD-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1TA2_MOUSE STANDARD;
062465, Q62165,
15-UUL-1998 (Rel. 36, Last sequence update)
15-UUL-1998 (Rel. 36, Last sequence update)
28-FEB-2003 (Rel. 41, Last almoctation update)
11-egyin alpha-2 precursor (Platelet membrane g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1111 ALYKLGFFKROYKDM 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 659 NKNAEI-----KLKLCF
                                                                                                                                                                                                                                                                                                                                                                                                                               : : : : |:
1091 TYNPQIYVIEENTVTIP--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (Mouse)
                                                                                                   542
                                                                                                                                                   622
                                                                                                                                                                                                                    734
                                                                                                                                                                                                                                    757
                                                                                                                                                                                                                                                    790
                                                                                                                                                                                                                                                                     817
                                                                                                                                                                                                                                                                                     849
                                                                                                                                                                                                                                                                                                     865
                                                                                                                                                                                                                                                                                                                                     924
                                                                                                                                                                                                                                                                                                                                                                      977
                                                                                                                   262
                                                                                                                                                                                    678
                                                                                                                                                                                                  708
                                                   446
                                                                                   504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KESULT 12
ITA2_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ITGA2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                               a
                                                                                                                                 g
                                                                                                                                               ે
                                                                                                                                                                ద
                                                                                                                                                                                  ò
                                                                                                                                                                                              g
                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                 Q
                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                 ò
                                                                                                                  ò
                                                  ò
```

```
between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@lsb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -!- SUBCELLULAR LOCATION: Type I membrane protein.
-!- DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
-!- SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
-!- SIMILARITY: Contains 1 VWFA domain.
-!- SIMILARITY: Contains 7 FG-GAP repeats.
                                                                                                                                                                                                                       STRAIN=CS7BL/6 X CBA; TISSUE=Lung;
MEDLINE=94363406; PubMed=8081889;
Edelman J.M., Chan B.M., Uniyal S., Onodera H., Wang D.Z.,
Damjanovich L., Latzer D.B., Finberg R.W., Bergelson J.M.;
"The mouse VLA-2 homologue supports collagen and laminin adhesion but
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE; PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PS50234; WWFA; 1.
Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane;
Platelet; Signal; Repeat; Calcium; Magnesium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INTEGRIN ALPHA-2.
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BY SIMILĀRITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOPLASMIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; Z29987; CAA82877.1; -.
EMBL; X75427; CAA53178.1; -.
PIR; S44142; S44142.
HSSP; P17301; JAOX.
MGD; MGI:95600; ILGA2.
INCELPRO; IPR000413; Integrin_alpha.
InterPro; IPR002035; VWF_A.
                                                                                                     not virus binding.";
Cell Adhes. Commun. 2:131-143(1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VWFA.
                                                                                                                                                                                     TISSUE=Lung;
MEDLINE=94355691; PubMed=7521231;
                                                                                                                                                              SEQUENCE OF 450-1178 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pfam, PF01839; FG-GAP, 3.
Pfam, PF000357; integrin A; 1.
Pfam; PF00092; vwa; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRINTS; PR01185; INTEGRINA.
PRINTS; PR00453; VWFADOWAIN.
SMART; SM00191; Int_alpha; 4.
SMART; SM00327; VWA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26
1178
1129
1151
1151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       483
546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REPEAT
REPEAT
CA_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
REPEAT
REPEAT
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIGNAL
```

```
KNSTRRQTQVLGLTQTCET - - LKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-1
ASSOCIATES WITH BETA-1.
SUBCELLULAR LOCATION: Type I membrane protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                X-RAY CRYSTALLOGRAPHY (2.1 ANGSTROMS)
MEDLINE=99313197; PubMed=10386626;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-1990 (Rel. 16, Created)
01-NOV-1990 (Rel. 16, Last seq
15-SEP-2003 (Rel. 42, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            E-R IN COLLAGEN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ITA1 RAT
P18614;
                                                                                                                                                                                                                                                     906
                                                                                                                                                                                                                                                                                                                                                                                981
                                                                                                                             789
                                                                                                                                                                                          848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               [TGA1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                           용
                                                             ઠે
                                                                                         셤
                                                                                                                           ઠે
                                                                                                                                                       ద
                                                                                                                                                                                         ò
                                                                                                                                                                                                                   음
                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                  44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              336
                                                                                                                                                                                                                                                                                                                                                                                                                                                            107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            391
                                                                                                                                                                                                                                                                                                                                                                                                                            98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ----SDVSPDFQFLTSFSPAVQACPSL-VDVVVVCDESNSIYP--WEAVKNFLVKFVTGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   :: :|: || | : || | : || TKNLIKEIKAGTLGEQIFSIEGTVQG-GDNFQMEMAQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEKSROELNTVASKPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EGFSA--AITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT--RVDSDMN-DAYLGYA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FNLDTENAMTFQ-ENARGFGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQC--DYST
                                                                                                                                                                                                                                                                                                                                                                                                                                                            GSCEPIRLO------VPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FLFGSNLRQQPQ---KFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     K - - KSKTLFSLMQYSEEFRIHFTFKEFONNPNPRSLIKPITQLLG-RTHTATGLRKVVRE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LFNITNGARKNAFKILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVIGV-----GDAFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANV----KGTQIGAYFGASLCS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VDVDSNGSTDLVLIGAPHYYEQTR - - GGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPR-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALD----SGRPHSRAVFNET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOYFGOSLSGGODLTMDGLVDLTVGAOGHVLLLRSOPVLRVKAIMEFNPREVARNVFEC
                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                        (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                              210; Mismatches 487; Indels 188;
                                                                                                                                                                                                                                                                                                                                 Length 1178;
                                  SITE (POTENTIAL)
                                                                                                                                                                                                                                                                                                    1F194B9C0240F465 CRC64;
            POTENTIAL.

CELL ATTACHMENT SITE (PO
GFRR MOTIF.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARIT
                                                                                                                                                                                                                                                                                                                                 Score 1057; DB 1;
Pred. No. 3.7e-64;
                                                                                                                                                                                                                                                                                                                                 18.0%;
                                                                                                                                                                                                                                                                                                    128926
                                                                                                                                                                                                                                                                                                                                            Local Similarity hes 340; Conservative
                                                                                                                           1047
1057
102
109
                                                                                                                                                                                                                                                                                                     ¥.
                                                                                                                                                                                         429
457
472
696
1054
1071
11078
                                                                                                                                                                                                                                   CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
SEQUENCE
                                                             DISULPID
DISULPID
DISULPID
DISULPID
DISULPID
DISULPID
                                                                                                                                                        CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                   Match
CA_BIND
CA_BIND
SITE
SITE
                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                    Query
 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
```

```
1040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      985 LVTIHIPQYTKEKNPLLYLTGIQTDQAGDISCTAEINPLKLPHTA----PSVSFKNENFR 1040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     980
                                                                                                   788
                                                                                                                                                        823
                                                                                                                                                                                                            847
                                                                                                                                                                                                                                                                                                                                                                          928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             984
737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nolte M., Pepinsky R.B., Venyaminov S.Y., Koteliansky V., Gotwals P.J., Karpusas M.; Gotwals P.J., Karpusas M.; "Crystal structure of the alphalbetal integrin I-domain function."; integrin I-domain function."; FEBS Lett. 452:379-385(1999) -- FUNCTION: INTEGRIN ALPHA-1/BETA-1 IS A RECEPTOR FOR LAMININ AND COLLAGEN. IT RECOGNIZES THE PROLINE-HYDROXYLATED SEQUENCE G-F-P-G-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1041 YIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  956 FLV------PVRLNOTVIWDRPOVTF-SENLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SERFLQKNMVVNEVQKCSEHHISIQKPS---DVVNPLDLRVDISLENPGTS-----PAL
                                                                                                                                       VKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQR-----SLPISLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                               STCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDW
                                                                                                      -- TFSFMSLDCLVVGGPREFNVT
                                                                                                                                                                                                            VIVRNDGEDSYRIQVIFFFPLDLSYRKVSTLQNQRSQRSWRLACESASST-EVSGALKST
                                                                                                                                                                                                                                                                                                                     SCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTE--FQLELP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.

BEGUENCE PROM N.A.

IGNATIONS 90138125; PubMed=2380249;

IGNATIONS M.J., Large T.H., Houde M., Tawil J.W., Barton A.,

Esch F., Carbonetto S., Reichardt L.F.;

Molacular cloning of the rat integrin alpha 1-subunit: a receptor for laminin and collagen.";

J. Cell Biol. 111:709-720(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-NOV-1990 (Rel. 16, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
Integrin alpha-1 precursor (Laminin and collagen receptor) (VLA-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Craniata; Vertebrata; Euteleosto
Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OF 151-364.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ź
                                                                                                      AEDAQRIFTALFPFEKNCGNDNICQDDLSI----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1180
```

```
387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ----SEKSRQELNTVASKPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEH 332
                                                                                                                                                                                                                                                                                                                                                  106
                                                                                                                                                                                                                                                                                                                                                                                          147
                                                                                                                                                                                                                                                                                                                                                                                                                                         163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GNLSTEKFVEEIKSIASEPTEKHFFNVSDELALVTIVKALGERIFALEATADQSAASFEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SURVILIDENLI-DPENG-----PVLDDALPNSVHEHIPFAKDCGNXERCISDLTLNVSTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMSQEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT---RVDSDMND---AY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              448 VDVDSNGSTDLVLIGAPHY------YEQTR-GGQVSVCPLPRGQRARWQCD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SCTKENKNEPCGARFGTAIAAVKDLNVDGFNDVVIGAPLEDDHAGAVYIYHG-SGKTIRE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GRPHSRAVFNET - - - - - - KNSTRRQTQVLGLTQTCETLKLQLPNCI - - - - - - - EDPVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LRQISRSFFSGTQERKIQRNITVRESE-------CIRHSFYMLDKHDFQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLL-LKANVTSEN
                                                                                                                                                                                                                                                                                                                                                                            89 AMPCVKLDLPVNTSIPNVTBIKENMIFGSTL-VTNPNGGFLACGPLYAYRCGHLHYTTGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LGYAAA11LRNRVQSLVLGAPRYQHIGLVAMFRQNTGMMESNANVKGTQ1GAYFGASLCS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AVLYGEQGQPWG-RFGAALTVLGDVNGDKLTDVAIGAPGBEDNRGAVYLPHGTSGSGISP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FNPREVARNVFECNDQVVKGKEAG -- EVRVCLHVQ - KSTRDRLREGQIQSVVTYDLALDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SLDCLVVGGPRE-FNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EKSLLIVKSQHDKFNVSLTVKNKGDSAVNTRTVVQHSPNLIFSGIEEIQKD----S
                                                                                                                                                                                                                                                        FNLDTENAMTFQENARG-FGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQCDYSTGS
                                                                                                                                                                                                                                                                                                     29 FNVDVKNSMSFSGPVEDMFGYTVQQYENEEGKWVLIGSPLVGQPKARTGDVYKCPVGRER
                                                                                                                                                                                                                                                                                                                                                  CEP-IRLQVPVEA-----VNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGL
                                                                                                                                                                                                                                                                                                                                                                                                                                         CFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVM---EQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LKK----SKTLFSLMQYSBEFRIHFTFKEFQNNPNPRSLIKPITQLLG-RTHTATGLRK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         197 LKRMDIGPKOTOVGIVOYGENVTHEFNLNKYSSTEEVLVAANKIGROGGLOTMTALGIDT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           218 VVRELFNITNGARKNAFKILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFR-
                                                                                                                                                                                                           Gaps
  GLCNAC. . .) (POTENTIAL).
GLCNAC. . .) (POTENTIAL).
GLCNAC. . .) (POTENTIAL).
GLCNAC. . .) (POTENTIAL).
GLCNAC. . .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ::
                                                                                                                                                            tch 17.9%; Score 1055; DB 1; Length 1180; al Similarity 27.4%; Pred. No. 5.1e-64; 346; Conservative 196; Mismatches 475; Indels 246;
  N-LINKED (GLCNAC. ..) (POTENT N-LINKED (GLCNAC. ..) (POTENT N-LINKED (GLCNAC. ..) (POTENT N-LINKED (GLCNAC. ..) (POTENT N-LINKED (GLCNAC. ..) (POTENT N-LINKED (GLCNAC. ..) (POTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED (GLCNAC. ..) (FOTENT N-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED M-LINKED 
                                                                                                                      MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ···
                                                                                                                      AA; 130808
       973
1007
1084
11103
       973
1007
1084
11103
1114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        615
    CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               675
                                                                                                                                                                                                                                                        H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        832
                                                                                                                                                                                                                                                                                                                                                                                                                                         101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   277
                                                                                                                                                                   Query Match
                                                                                                                                                                                        st Local
                                                                                                                                                                                                           Matches
       FFFFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             සි ති
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ૪
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       중 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               &
                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch)
       A VWFA DOMAIN. INTEGRINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRINTS; PRO118; INTEGRINA.
PRINTS; PR00453; VWFADOWAIN.
SMART; SM00131; Int_alpha; 5
SMART; SM00137; VM.
PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane; Signal; Repeat; Calcium; Magnesium; 3D-structure.
-i- DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
-i- SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
-i- SIMILARITY: CONTAINS 1 VWFA domain:
-i- SIMILARITY: CONTAINS 7 FG-GAP repeats.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EXTRACELLULAR (POTENTIAL) POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INTEGRIN ALPHA-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY.
SIMILARITY.
SIMILARITY.
SIMILARITY.
SIMILARITY.
SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOTIF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
N-LINKED (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FG-GAP 1.
FG-GAP 2.
VWFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                      EMBL; X52140; CAA36384.1; -. PIR; A35854; A35854; A35854; DDB; ICQ 03-MAY-00. InterPro; IPR000413; Integrin_alpha. InterPro; IPR02035; VWF_A. Pfam; PP01839; PG-GAP; 3. Pfam; PP00357; integrin_A; 1. Pfam; PP00357; vwa; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GFFKR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             885
10062
10073
10073
1105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
11105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
1105
11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1142
1165
1180
103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     388
432
484
565
626
681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29
29
1143
1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             877
1029
1066
1006
100
1112
217
217
341
402
459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SITE
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHAIN
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
REPEAT
BOOMAIN
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
CA_BIND
CA_BIND
CA_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
```

والتعدد

```
986 YIIRKRGHFPMPELQLSISFPNLTADGYPVLYPIG-----WSSSDNVNCRPRSLEDPFG 1039
                                                                                                                                                                               ----QVTFS------BNLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQ 1016
                                                                                                                                                                                                                                                       NATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLL 1067
                                                                                                                                                                                                                                                                                                                                                891 NMPRTNKTEFQLELPVKYAV----YMVVTSHGVST-----KYLNFTASENTSRVMQHQ 939
877 CESN------QNITCRVQYPFLRAGETVTFKIIFQFNTSHLSENAIIHLSATSDSEE 927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A., AND SEQUENCE OF 30-44.
TISSUESEINGCHelial cells;
MEDLINE-89308879; PubMed-2545729;
Takada Y., Hemler M.E.;
"The primary structure of the VLA-2/collagen receptor alpha 2 subunit (platelet GFTa): homology to other integrins and the presence of a possible collagen-binding domain.";
Cell Biol. 109:397-407 (1989).
                                                           928 PLESLNDNEVNISIPVKYEVGLQFYSSASEHHISVAANETIPEFINST--EDIGNEINVF
                                                                                                                                                                                                                                                                                                                          PGQGAFVRSQTETKVEPFEVPNPLPL--IVGSSVGGLLLLALITAALYKLGFFKRQYKDM
                                                                                                          ------EVPVRLNOTVIWD-----RP-----
                                                                                                                                                                                                                 1040 INSGKKWTISKSEVLKRGTIODCSSTC------GVATITCSLLPSDLSO
                                                                                                                                                                                                                                                                         01-AUG-1990 (Rel. 15, Created)
01-AUG-1990 (Rel. 15, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
11-ESEP-2003 (Rel. 42, Last annotation update)
11-Egrin alpha-2 precursor (Platelet membrane glycoprotein Ia) (GPIa)
(Collagen receptor) (VLA-2 alpha chain) (CD49b)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "The human platelet alloantigens Br(a) and Brb are associated with a single amino acid polymorphism on glycoprotein Ia (integrin subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  X-RAY CRYSTALLOGRAPHY (2.1 ANGSTROMS) OF 168-368.
MEDLINE=98019223; PubMed=3953|312;
Emsley J., King S.L., Bergelson J.M., Liddington R.C.;
"Crystal structure of the I domain from integrin alpha2betal.";
J. Biol. Chem. 272:28512-2851|7(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Santoso S., Kalb R., Walka M., Kiefel V., Mueller-Eckhardt C.,
Newman P.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rieder M.J., Armel T.Z., Carrington D.P., Ozuna M., Kuldanek Rajkumar N., Toth E.J., Yi Q., Nickerson D.A., Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT; 1181 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Clin. Invest. 92:2427-2432(1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VARIANT GLU-534.
MEDLINE=20206009; PubMed=10744142;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=94043762; PubMed=7901236;
                                                                                                                                                                                                                                                       1017 CDI-----PFFGIQEEF--
                                                                                                        940 YOVSNLGORSLP---ISLVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VARIANT HPA-5 (BR)
                                                                                                                                                                                                                                                                                                                                                                                                 MSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                   1178 MEK 1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ITA2 HUMAN
ID ITA2 HUMAN
AC P17301;
                                                                                                                                                                               972
                                                                                                                                                                                                                                                                                                                                                                                                 1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ITGA2
                                                                   g
                                                                                                      ò
                                                                                                                                   g
                                                                                                                                                                        ò
                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                           8
```

. J. . J. ...

```
Thromb. Haemost. 83:392-396(2000).

Thromb. Haemost. 83:392-396(2000).

COLLAGEN. COLLAGEN. C-PROPEPTIDES. FISHORDECTIN AND E-CADHERIN. IT RECGAIZES THE PROPINE FOR ADHESION AND E-CADHERIN. IT RECGAIZES THE PROLINE-HYDROXYLATED SEQUENCE G-F-D-G-E-R. IN COLLAGEN. COLLAGEN. COLLAGEN. COLLAGEN. MAD COLLAGEN. AND COLLAGENASE GENE CELLA TO COLLAGEN. MODULATION OF COLLAGEN AND COLLAGENASE GENE EXPRESSION, FORCE GENERATION AND ORGANIZATION OF NEWLY SYNTHESIZED EXTRACELLULAR MATRIX.

SUBUNIT: Heterodimer of an alpha and a beta subunit. Alpha-2 associates with beta-1. Interacts with HPSS.

SUBUNIT: Heterodimer of an alpha and a beta subunit. Alpha-2 associates with beta-1. Interacts with HPSS.

SUBUNIT: HOMAIN LOCATION: Type I membrane protein.

-1- DOMAIN: THE INTEGRIN 1-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH 1-DOMAINS DO NOT UNDERGO PROTEASE CLENVAGE.

-1- DOMAIN: THE STATION: Type IS ASSOCIATED WITH PLATELET-SPECIFIC ALLOANTIGEN HPA-5 (BR). HPA-5A/BR(A) HAS LYS-534 AND HPA-5B/BR(B) HAS GIU-534. HPA-5B IS INVOLVED IN NEONATAL ALLOIMMINE THE MODIATE ALLOIMMINE THE CORDARY ARTERY DISEASE (CAD).

-1- SIMILARITY: CONDARY ARTERY DISEASE (CAD).

-1- SIMILARITY: CONDAIN: 7 FG-CAD FERRESCENCE (CAD).

-1- SIMILARITY: CONDAIN: 7 FG-CAD FERRESCENCE (CAD).

-1- SIMILARITY: CONDAIN: 7 FG-CAD FERRESCENCE (CAD).

-1- SIMILARITY: CONDAIN: 7 FG-CAD FERRESCENCE (CAD).

-1- SIMILARITY: CONDAIN: 7 FG-CAD FERRESCENCE (CAD).

-1- SIMILARITY: CONDAIN: 7 FG-CAD FERRESCENCE (CAD).

-1- SIMILARITY: CONDAIN: 7 FG-CAD FERRESCENCE (CAD).

-1- SIMILARITY: CONDAIN: 7 FG-CAD FERRESCENCE (CAD).

-1- SIMILARITY: CONDAIN: 7 FG-CAD FERRESCENCE (CAD).

-1- SIMILARITY: CONDAIN: 7 FG-CAD FERRESCENCE (CAD).

-1- SIMILARITY: CONDAIN: 7 FG-CAD FERRESCENCE (CAD).

-1- SIMILARITY: CONDAIN: 7 FG-CAD FERRESCENCE (CAD).

-1- SIMILARITY: CONDAIN: 7 FG-CAD FERRESCENCENCE (CAD).

-1- SIMILARITY: CONDAIN: 7 FG-CAD FERRESCENCE (CAD).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
Kroll H., Gardemann A., Fechter A., Haberbosch W., Santoso S.; "The impact of the glycoprotein Ia collagen receptor subunit A1648G gene polymorphism on coronary artery disease and acute myocardial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
Integrin; Call adhesion; Receptor; Glycoprotein; Transmembrane;
Placelet; Signal; Repeat; Calcium; Magnesium; Polymorphism;
3D-structure.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GO; GO: 0008305; C: integrin complex; TAS.
GO; GO: 0008305; C: plasma membrane; TAS.
GO; GO: 0004895; F: cell adhesion receptor activity; TAS.
GO; GO: 0005518; F: cell adhesion receptor activity; TAS.
GO; GO: 0007596; P: blood coagulation; TAS.
GO; GO: 0007397; P: histogenesis and organogenesis; TAS.
GO; GO: 0007397; P: histogenesis and organogenesis; TAS.
InterPro; IPR00413; Integrin_alpha.
InterPro; IPR002035; WWP_A.
Ffam; PP00397; F: integrin_A; I.
Ffam; PP00397; Integrin_A; I.
Ffam; PP00397; Integrin_A; I.
Ffam; PP00397; WWADOWAIN.
SMART; SM00391; Int_alpha; S.
SMART; SM00327; WWA, I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INTEGRIN ALPHA-2.
EXTRACELLULAR (POTENTIAL)
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOPLASMIC (POTENTIAL). INTERACTION WITH HPSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; X17033; CAA34894.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; AF512556; AAM34795.1;
PIR; A33998; A33998.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genew; HGNC:6137; ITGA2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29
1181
1132
1154
1161
103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PDB; 1AOX; 25-NOV-98.
PDB; 1DZI; 02-AUG-01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1133
1155
1155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REPEAT
REPEAT
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
```

17.0   17.0	166 KSKTLPSLAGYSEERBIHFTKEEDUNDPURDLIA-THYTHTGLIG-RTHTATGLRKVYRELEN 224 206 FITTOWALINE WINNEATTKTEEDUNDPRELIKPITQLLG-RTHTATGLRKVYRELEN 225 225 ITMGARGARKILPFLLTDGEKFGDPLCYEDVIPELDRECVIRVIOVGDARGEK 279 266 AAGGREATKWAVYTDGESH-GSELKAVIDOCHANILRFGIAVGALGARGALDTG 234 280 SROELATVASKPRDHVEOINNFEALKTIONQLERKIPATGGTGASSESFEHENGOGGF 313 310 SAALTSNOPLLSTVGSYDNAGGVELYKSKRSFFINMKUDSDNADAYLGYGAP 313 314 SAALTSNOPLLSTVGSYDNAGGVELYKSKRSFFINMKUDSDNADAYLGYGAP 314 315 LIKENKOGLIAGAPRYGOTAVARRANICAMERANICAMERANICAME 443 316 SAALTSNOPLLSTVGSYDNAGGVELYKSHGHLIPPKOAPHOSTLODRYGARSYGAP 319 317 SAALTSNOPLLSTVGSYDNAGGVELYKSHGHLIPPKOAPHOSTLODRYGAPSKYGAP 319 318 SADYSGNDILMLGAGAPCGTAVARRANICAMERANICAME AND AND AND AND AND AND AND AND AND AND	959
## 433 FC-GAP 3. ## 516 FC-GAP 4. ## 517 FC-GAP 5. ## 518 FC-GAP 6. ## 519 FC-GAP 6. ## 511 FC-GAP 6. ## 511 FC-GAP 6. ## 511 FC-GAP 6. ## 511 FC-GAP 6. ## 511 FC-GAP 6. ## 512 FC-GAP 6. ## 512 FC-GAP 6. ## 513 FG-GAP 6. ## 513 FG-GAP 6. ## 513 FG-GAP 6. ## 513 FG-GAP 6. ## 513 FG-GAP 6. ## 513 FG-GAP 6. ## 513 FG-GAP 6. ## 513 FG-GAP 6. ## 513 FG-GAP 6. ## 513 FG-GAP 6. ## 513 FG-GAP 6. ## 513 FG-GAP 6. ## 513 FG-GAP 6. ## 513 FG-GAP 6. ## 514 FG-GAP 6. ## 515 FG-GAP 6. ## 515 FG-GAP 6. ## 516 FG-GAP 6. ## 516 FG-GAP 6. ## 516 FG-GAP 6. ## 516 FG-GAP 6. ## 516 FG-GAP 6. ## 516 FG-GAP 6. ## 516 FG-GAP 6. ## 516 FG-GAP 6. ## 516 FG-GAP 6. ## 516 FG-GAP 6. ## 516 FG-GAP 6. ## 516 FG-GAP 6. ## 517 FG-GAP 6. ## 518	8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6	\$ 6 \$ 6 \$ 6 \$
378 433 434 486 488 549 615 667 699 507 680 737 789 795 1019 1050 1057 1161 83 92 680 737 789 795 1059 1050 1051 1051 1051 1051 1051 1051 1051 1051 1051 1051 1051 1060 1052 1060 1053 1060 1053 1060 1054 132 432 440 432 440 432 440 432 440 433 441 433 441 1081 1081 1081 1081 1081 1081 1081 1081 1082 200 204 204 206 208 207 206 208 208 209 201 200 201 200 201 200 201 200 201 200 201 200 201 200 201 200 201 200 201 200 201 201 333 331 330 331 331 331 330 331 330 331 331 331 330 331 331 331 331 331 331 331 332 331 330 331 331 331 331 331 331 331 331 331 331 331 331 331 332 331 33	FG-GAP 3. FG-GAP 4. FG-GAP 5. FG-GAP 6. FG-GAP 7. FG-GAP 7. FG-GAP 7. FG-GAP 7. FG-GAP 7. FG-GAP 7. FG-GAP 7. FG-GAP 7. FG-GAP 6. FG-GAP 7. FG-GAP 6. FG-GAP 7. FG-GAP 6. FG-GAP 6. FG-GAP 7. FG-GAP 6. FG-GAP 7. FG-GAP 6. FG-GAP 6. FG-GAP 7. FG-GAP 6. FG-GAP 6. FG-GAP 7. FG-GAP 6. FG-GAP 7. FG-GAP 6. FG-GAP 7. FG-GAP 6. FG-GAP	# Gaps  ## G
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	#44000000	larity 26.7%; Conservative 2 Conservative 2 OTENAMTEQ-ENARG SLPEAKIFSGESSEQ EPIRLQVP :           EKLNLQTSTSIPNVT
FT REPEAT FT REPEAT FT REPEAT FT REPEAT FT REPEAT FT REPEAT CA-BIND FT CA-BIND FT CA-BIND FT SITE DISULFID FT DISULFID FT DISULFID FT CARBOHYD FT CARB		32 1 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

```
TISSUB-Endothelial cells, and Heart;

MEDINE-20169197; PubMed-10702680;

MEDINE-20169197; PubMed-10702680;

Lehnert K., Ni J., Leung E., Gough S.M., Morris C.M., Liu D.,

Lehnert K., Ni J., Leung E., Gough S.M., Morris C.M., Liu D.,

Mang S.-X., Langley R., Krissansen G.W.;

The integrin alphalo subunit: expression pattern, partial gene

The integrin alphalo subunit: expression pattern, partial gene

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. Cell Genet. 87:228-244 (1999).

Cytogenet. 87:228-244 (1999).

Cytogenet. 87:228-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
TISSUE_Arricular chondrocytes;
TISSUE_Arricular chondrocytes;
Camper L., Hellman U., Lundgren-Aakerlund E.;
"Isolation, cloning, and sequence analysis of the integrin subunit alphalo, a betal-associated collagen binding integrin expressed on
                                                                                                                                                                                                                                                                                                                                                                Craniata, Vertebrata, Buteleostomi,
Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GO; GO:0008305; C:integrin complex; TAS.
GO; GO:0004895; F:cell adhesion receptor activity; TAS.
GO; GO:000518; F:collagen binding activity; TAS.
GO; GO:0007160; P:cell-matrix adhesion; TAS.
InterPro; IPR000413; Integrin alpha.
                                                                                                                                                                  075578; 090H28; 16-0CT-2001 (Rel. 40, Created) 16-0CT-2001 (Rel. 40, Last sequence update) 16-0CT-2003 (Rel. 41, Last annotation update) 11tegrin alpha-10 precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SMART; SM00191; Int_alpha; 4
SMART; SM00327; VWA; 1
PROSITE; PS00242; INTEGRIN_ALPHA; FALSE_NEG
                                                                                                                                                    1167 AA
1142 GILLLLALVAILWKLGFFKRKYEKM 1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         chondrocytes.";
J. Biol. Chem. 273:20383-20389(1998)
                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; AF074015; AAC31952.1;
EMBL; AF112345; AAF21944.1;
EMBL; AF172723; AAF61638.1;
HSSP; P17301; 1AOX.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRINTS; PR01185; INTEGRINA.
PRINTS; PR00453; VWFADOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR002u35; vm. Pfam; PF01839; FG-GAP; 3. Pfam; PF00092; vwa; I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HGNC:6135; ITGA10.
                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                         Homo sapiens (Human)
                                                                                                                                                 TAG HUMAN
                                                                                                                        ITAG HUMAN
                                                                                                                                                                       셤
```

```
45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       93 NAPCAKGHLGDYQLGNSSHP-----AVNMHLGMSLLETDGDGGFMACAPLWSRACGS 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100 NTYVKGLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEW--V 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       158 STVMEQL-----KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGR-TH 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       185 QTFLRRLVGKLFIDPEQIQVGLVQYGESPVHEWSLGDFRTKEEVVRAAKNLSRREGRETK 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GV-GDAFRSEKS----RQELNTVASKPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQT 324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             363 ENESSFGLEMSQIGFSTHRLKDGILFGMVGAYDWGGSVLWLEGGHRLFPPRMALEDEFPP 422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 FNLDTENAMTFQENARG-FGQSVVQLQGSR----VVVGAPQEIVAANQRGSLYQC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -----DYSTG-SCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATGLRKVVRELFNITNGARKNAFKILFLLTDGEKF-GDPLGYEDVIPELDREGVIRYVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDS---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    --DMNDAYLGYA-AAIILRNRVQSLVLGAPRYQHIGLVAMFR-QNTGMWESNANVKGTQI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative 199; Mismatches 491; Indels 183; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (POTENTIAL). (POTENTIAL). (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17.9%; Score 1051.5; DB 1; Length 1167; 28.7%; Pred. No. 8.7e-64;
                         Glycoprotein; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AE7D3A1C25C1AEA0 CRC64;
                                                                    FOTENTIAL.
INTEGRIN ALPHA-10.
EXTRACELLULAR (POTENTIAL).
POTENTIAL.
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    I -> L (IN REF. 2)
G -> V (IN REF. 2)
E -> D (IN REF. 2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GLCNAC.
(GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GLCNAC
                                                                                                                                                                                                                                                                 WWEA.
FG-GAP 3.
FG-GAP 4.
FG-GAP 6.
FG-GAP 6.
FG-GAP 7.
POLY-LBP 7.
POTENTIAL.
POTENTIAL.
POTENTIAL.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-LINKED (GLCN)
N-
                                                                                                                                                                                                                FG-GAP 1.
FG-GAP 2.
           Integrin; Cell adhesion; Receptor; Signal; Repeat; Calcium; Magnesium. SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    127573 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98
334
334
733
733
733
763
839
839
844
844
909
926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       921
1011
1018
1018
1039
103
103
909
909
926
926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
PROSITE; PS50234;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Sim:
Matches 351;
                                                                                                                                DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CA_BIND
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
CONFLICT
CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
CA_BIND
CA_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                REPEAT
REPEAT
                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                             REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                   REPEAT
REPEAT
SOTITION OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF TH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

	438 GAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAVLY 495	483 GSYFGSELCPLDTDRDGTTDVLLVAAPWFLGPQNKETGRVYVXLVGQQSLLTLQGTLQ 540	496 GEQGQPWGRFGAALIVLGDVWGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQR 555	541 PEPPQD-ARFGFAMGALPDLNQDGFADVAVGAPLEDGHQGALYLYHGTQ-SGVRPHPAQR 598	556 IAGSKLSPRLQYFGQSLSGGDDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPRE 615	S99 IAAASMPHALSYFGRSVDGRLDLDGDDLVDVAVGAQGAAILLSSRPIVHLTPSLEVTPQA 658	616 VARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALDSGRPHSR 673	659 ISVVQRDCRRRGQEAVCLTAALCFQVTSRTPGRWDHQFYMRFTASLDEWTAGAR 712	674 AVFNET KNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFG 731	713 AAFDGSGQRLSPRRLRLSVG-NVTCEQLHFHVLD-TSDYLRPVALTVFFALDNTTKPG 768		769PVLNEGSPTSIQKLVPFSKDCGPDNECVTDLVLQVNMDIRGSRKAPFVVRGGRR 822	784 EFNVTVTVRNDGEDSYRTQVTFFPPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGA 843	823 KVLVSTTLENRKENAYNTSLSIIFSRNLHLASLTPQR-ESPIKVECAAPSA 872	844 LKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRT 895	873 -HARLCSVGHPVFQTGAKVTFLLEFEFSCSSLLSQVFGKLTASSDSLERNGTLQENTAQT 931	896 NKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQY 940	932SAYIQYEPHLLFSSESTLHRYEVHPYGTLPVGPGFEFKTTL 972	-	973 RVQNLGCYVVSGLIISALLPAVAHGGNYFLSLSQVITNNASCIVQNLTE 1021	989 LPSHSDFLAELRKAPVVNCSIAVÇQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNH 1048	1022 PPGPPVHPEELQHTNRLNGSNTQCQVVRCHLGQLAKGTEVSVGLLRLVHNEFFRRAKFKS 1081	1049 LLIVSTAEILENDSVFTLLPGGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALI 1108	1082 LTVVSTFELGTEEGSVLQLTEASRWSESLLEV-VQTRPILISLWILIGSVLGGLLLLALL 1140	1109 TAALYKLGFFKRQYK 1123	1141 VFCLWKLGFFAHKKIPEEEKREEK 1164
q	ò	qq	ò	q	ò	qo	٥٨	qa	ò	q	δ	qa	ò	qa	ò	qa	ò	qo	ò	QQ	ò	С	ò	qq	ò	QQ

Search completed: November 25, 2003, 14:17:30 Job time: 13:1742 secs

The Same

Q9wuf8 mus sp. itg Q8mkf4 fells silve Q8tes5 homo aspien Q9bpq8 halocynthia	063701 zettus norv Q06271 xenopus lae Q8wy18 homo saplen Q8ce84 mus musculu Q61899 mus musculu Q9bqu3 bos taurus	Q91yd5 mus musculu Q8c270 mus musculu Q9ub90 lyrechinus O76378 lyrechinus	Q98tt7 gailus gail Q9u6al strongyloce Q42598 xenogus lae	Q921//9 Xenopus lae Q924w2 rattus norv	QBCCO6 mus musculu Q9mzd6 bos taurus Q9qk48 bos taurus	Q9tun6 sus scrofa	Q8951 drosophila Q8957 halocynthia Q9bqq7 halocynthia Q9tu44 cania famil	ALIGNMENTS		09-1130 01-0CT-2000 (TrEMBLrel. 15, Created) 01-0CT-2000 (TrEMBLrel. 15, Last sequence update) 01-MAR-2003 (TrEMBLrel. 23, Last annotation update)	Craniata, Vertebrata, Euteleostomi, Sciurognathi, Muridae, Murinae, Rattus.	SEQUENCE FROM N.A. Fathallah D.M. Sr., Zerria K. Jr.; "Cloning of the rat CD11b cDNA sequence."; Submitted (MAY-200) to the EMBL/GenBank/DDBJ databases.			. 1. 8878669678636 CPC64.	Score 431; DB 11; Length 1151; Bred. No. 9.4e-317; D; Mismatches 159; Indels 2; Gaps 2;	FNLDTENAMTFQENARGFGQSVVQLGGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI 60	
Q9WUF8 Q8MKF4 Q8TES5 Q9BPQ8								3	Edd	Created) Last seq Last ann	nt. a, Crania la, Sciurc	K. Jr.; :DNA seque = EMBL/Ger	rin_alpha.		EMART; SM00191; INL alpha; S. SMART; SM00191; INL alpha; S. SMART; SM00327; VWA; I. PROSITE; PS00242; IWTEGRIN_ALPHA; 1. PROSITE; PS50234; VWPA; I. 1. 7. 5443 WW. RF.	Score 4 Pred. N	FGOSVVQLOC         	
895 11 1160 6 348 4 1332 5	205 11 780 13 823 4 823 11 1032 11						1049 5 833 5 1036 6		200	Lrel. 15, Lrel. 15, Lrel. 23,	pna subur (Rat). ; Chordat ; Rodentí	, Zerria t CD11b c 0) to the	3; Integral S; VWF_A	egrin_A; ; 1. NTEGRINA	t_alpha; A; 1. INTEGRIN VWFA; 1.	74.3%; SC 72.6%; Pr vative 150;	TFOENARGI         TFOENASGI	
17.1 17.0 14.7 14.6	13.5 12.8 11.7 11.4	10.9		40.0	y 00 00 5 00 00		9 80 80 80 8 5 4 4 6 6		, a	(Tremb	eta z al vegicus Metazoa Eutheria	TROM N.A. D.M. Sr. of the ra (MAY-200	15; 18HQ IPR00041 IPR00203	1357; int 1092; vwa 101185; I	00191; In 00327; VW 9S00242; 9SS0234;	Match 74. Local Similarity 72. Les 826; Conservative	NLDTENAM	
	796 753.5 738 686.5 669 644.5								e	9J130; 1-OCT-200 1-OCT-200	Integrin beta Z alupha subunit. Rattus norvegicus (Rat). Bukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia; NCBI TaxID=10116;	EQUENCE Fathallah Cloning c ubmitted	SSP; P112 nterPro; nterPro;	fam; PFOC fam; PFOC fam; PFOC RINTS; PR	MART; SMC MART; SMC ROSITE; F	Match Local S les 826	1 E	
17 19 19	4 4 6 4 6 4 4 6 4 6 6	3 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	332	2 CO C	2 W. W.	9 W 4. 4	. 4. 4. 4. 4 . 4. 4. 4. 4	2	RESULT Q9JI30	CAUCO	OCC OS SE SE SE SE SE SE SE SE SE SE SE SE SE	RAT REPORTED TO THE PORT OF TH	88888 88888	. <b>a.</b> a. a. a	2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Quer Best Matc	b Q	
version 5.1.6 - 2003 Compugen Ltd.	model 11:54 ; Search time 33.1068 Seconds (without alignments) RRA2 397 Million cell undates/sec	FKRQYKDMMSEGGPPGAEPQ 1137		residues	parameters: 830525		ries			·		s predicted by chance to have a le score of the result being printed, total score distribution.	SUMMARIES	Ogitao	000000 000000 000000 000000	O98tfl O96tbl P O98tfo O98tfo	0 088340 rattus norv 1 088341 rattus norv 4 042094 gallus gall 1 08b801 mus musculu	
(I) m	8₩ 14:	RGFGQ.	xt 0.5				oot s summaries		*:		*: ed: *:	result to the	SU SU	9J13	Q80XH4 Q90XH4 Q90YE7 Q9WTV4	Q96HB1 Q96HB1 Q98TF	088340 088341 042094 Q8BS01	
	¥ 4.1	US-09-902-481B-4 5884 1 FNLDTENAMTFQENARGFGQ.		830525 segs, 258052604	hits satisfying chosen	length: 0 length: 200000000		SPTREMBL_23:* : sp_archea:* : sp_bacteria:* : sp_fungi:*	sp_human:* sp_invertebrate: sp_mammal:*		* 6 *	. קר <u>ה</u>		1151 11 1036 11	59.0 1169 4 Q25954 55.0 1169 1 Q9QXH 55.0 1161 11 Q9QXE 55.0 1161 11 Q9QXE 55.0 1161 11 Q9QXE	3.7 1196 13 3.0 1086 4 2.9 1187 13 1.6 927 6	9.6 1167 11 8.8 1167 11 7.7 1171 13 7.5 1038 11	

B & B & B &

```
137
                                                                                                                                                                                                                                                                                                                                                                                                                                      _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
RESOUTH OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF STATE OF S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                             윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ठ हे ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ያ ያ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       જે
                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RINGTVIWDRPQVTFSENISSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCORIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960
                                                                                                                            240
                                                                                                                                                                                       300
                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                  376
                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                               436
                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                           496
                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              914
                                 136
                                                                180
                                                                                             196
                                                                                                                                                         256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                      SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRINKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SLVGTPLSAFGNLRFVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PLQVPPEAVNMSLGLSLAATTVPPQLLACGPTVHQNCKENTYVNGLCYLFGSNLLRKPQQ
                                                                                                                          RIHFTEKEFONNDNPRSLIKPITOLLGRIHTATGIRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                     NFEALKTIONOLREKIFAIEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                              QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOVPVEAVNMSLGLSLAATIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                              17
                                                                                             137
                                                                                                                                                                                         241
                                                                                                                                                                                                                    257
                                                                                                                                                                                                                                                                                  317
                                                                                                                                                                                                                                                                                                                                               377
                                                                                                                                                                                                                                                                                                                                                                                                           437
                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         021
      61
                                                                121
                                                                                                                            181
                                                                                                                                                         197
                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                              421
```

g

8 6

õ

강염

q

6 6 6 6 6

원 장

8 & 8

```
ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   099
                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                 76
                                                                                                                                                                                                                                              ĕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                 NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                         TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                          FNLDTENAMTFOENARGFGOSVVOLGGSRVVVGAPQEIVAANORGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                               Team;
annotation
OBCA73 PRELIMINARY; PRT; 1036 AA.

OBCA73;

OBCA73;

OL-MAR-2003 (TrEMBLrel. 23, Last sequence update)

OL-MAR-2003 (TrEMBLrel. 23, Last annotation update)

Integrin alpha M.

Mus musculus (Mouse).

Enkaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

Muscul TaxID=10090;
                                                                                                                                                                                                                                                                                                                                     1036;
                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                66.1%; Score 3891.5; DB 11; Lengt
66.0%; Pred. No. 4.8e-281;
ive 125; Mismatches 143; Indels
                                                                                                                                                                                                                               Phase I & II
on functional
                                                                                                                                                                                                                                                                                                      4F4F39BF1E188E77
                                                                                                                                                                                                                               h Group
based or
                                                                                                                                                      [1]
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
SPEAIN-C57BL/6J; TISSUE=Spinal cord;
MEDLINE=22354683; PubMed=12466851;
The FANTOM CONSORTIUM,
the RIKEN Genome Exploration Research G;
"Analysis of the mouse transcriptome base
60,770 full-length cDNAs.";
Natur 420:563-573(2002).
EMBLy, AKO39444; BAC30350.1;
SEQUENCE 1036 AA; 115126 MW; 4F4F399
                                                                                                                                                                                                                                                                                                                                Query Match 66.1%; sco.
Best Local Similarity 66.0%; Pre-
Matches 751; Conservative 125;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           :| | | | : ::||
ENFGTWEPHTSIKG-----
```

237

Ĺ

임

ď ò 셤 ò

õ

8 6

g ò 9 ⋧ 셤 ò 셤

ે

```
QINNFEALKTIQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYD
                                                                                                                                                                                                                                             MFRONTGAMESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRCGQVSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CPLPRGGRARWQCDAVLYGEQGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S40 IIIYDLALDPGRPHPRAVFEETKNNTRRQTQTLGLSRKCEHLALWLPDCVEDSVTPIVLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VVGGPRDLKVTLTVRNQGEDSYRTQVTFFYPSDLSYRKVSTSQNQRSQRSWRLACESDVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TEFOLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TEFQLELPVKYAVYVVVTSLEVSTKYFNFTASEKTRHVIEHQYQFNNLGQRKLDISVVFW
EEFRIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKIL
                                                                                                                                                                                                                                                                                                                             WAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVA
                                                                                                                                                                                                                                                                                                                                                      RSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNC1EDPVSP1VLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCL
                                                                                                                                     PLLTDGEKFGDPLGYEDVI PELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleogtomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo. NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OBIVA6;
01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
Integrin, alpha X (Antigen CDIIC (piso), alpha polypeptide)
Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT; 1169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DIPFFGIQEEFNATLKGNLSF 1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DIPSFGIQEELKVTLKGNLSF 920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                             358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1018
178
                                                                                                        238
                                                                                                                                                                                                                 298
                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                     418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q8IVA6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q81VA6
1D Q8
AC Q8
DT Q1
DT 01
DE IN
OS HC
OC EV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT
                                       셤
                                                                                                                                             셤
                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                     ઠે
                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960 VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ï
                                                                                                                                                                                                                                                                                                                               899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |::| :|| ||| ||:||| |||:||| |||:|| |||:|| ||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||::|||::|||::|||::|||::|||::|||::|||::|||:|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||:|||::|||::|||::|||::|||::|||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||::||:::||::||::|::|::||::|::||::||::||::|::||::|::|::||::||::||::||::||::||::||::||::||::||::||::||::
                                                                                                                                                           678
                                                                                                                                                                                                                 839
                                                                                                                                                                                                                                                                          738
                                                                                                                                                                                                                                                                                                                                                            GHGALKSTTWNINHPIFPANSEVTFNVTFDVDSHASFGNKLLLKAIVASENNMSRTHKTK 798
                                                                                                                                                                                                                                                                                                                                                                                                                                        959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FQLELPVKYAIYMIVTSDESSIRYLNFTASEMTSKVIQHQYQFNNLGQRSLPVSVVFWIP
                               84'0 VSGALKSTSCSINHPIFPEN$EVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTE
                                                                                                                                                                                                                                                                                                                                                                                                                                           FOLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRL-ACESASSTE
  YDLALDSGRPHSRAVFNETKWSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                           SLVGTPLSAFGNLRPVLAEDÅQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Euteleostomi;
Sus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
64.6%; Score 3799.5; DB 6; Length
Best Local Similarity 78.8%; Pred. No. 2.9e-274;
Matches 726; Conservative 84; Mismatches 110; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
Lee J.-K., Schook L.B., Rutherford M.S.;
Submitted (NOV-1995) to the EMBL/GenBank/DDBJ databases.
EMBL, 140072. AAB16869.1;
HSSP; P11215; 1BHO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          920 920
920 AA; 102440 MW; E96CC51E350DD5AC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota, Mecazoa, Chordata, Craniata, Vertebrata,
Mammalia, Eutheria, Cetartiodactyla, Suina, Suidae,
NCBI_TaxID=9823;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR000413; Integrin_al
InterPro; IPR002015; VWF_A.
Pfam; PP010183; FG-GAP; 4.
Pfam; PP00022; VWa; 1.
PRINTS; PR01185; INTEGRINA.
PRINTS; PR00453; VWFADOWAIN.
SWART; SM00191; Int_alpha; 4.
SWART; SM00191; Int_alpha; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1996 (TrEMBLrel. 01,
01-FEB-1997 (TrEMBLrel. 02,
01-MAR-2003 (TrEMBLrel. 23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CD11b (Fragment).
CD11B.
Sus scrofa (Pig).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NON TER
NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1080
                                                                                                                                                                                                                                                                                                                                                                                     139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          859
                                                                                                           721
                                                                                                                                                              619
                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                          619
                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q28984
Q28984;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 3
028984
1D 0289
AC 0289
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-
```

ò

539 717 599 777 629 837 719 779 957

1079

SOREAS

g

ò

셤

ઠે

g

ò

දු පු

ò g 상 점

```
TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQOPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PNLDAEKLTHFHMDGAEFGHSVLQYDSSWVVVGAPKEIKATNQIGGLYKCGYHTGNCEPI
                                                                                                      VRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                   FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                        PFGIOEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                                                                                                                 Euteleostomi;
Murinae; Mus.
                                                                                                                                       Dendritic Cells.";
                                                                                                                                                                                                                                                     01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
Leukocyte adhesion glycoprotein p150,95 alpha integrin subunit.
                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleosto
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
Huang X., Gorski K., Tong C., Rattis F.-M., Tseng S.-Y.,
Tsuchiya H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1169 AA; 129150 MW; C616412033C219A6 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                       "Isolation of Genes Selectively Expressed by Dendritic C
Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases
EMBL, AF211864; AAF23492.1; -...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               56.3%; Score 3310.5; DB 11; 56.6%; Pred. No. 1.3e-237; ive 173; Mismatches 303; It
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MGD; MGI:96609; Itgax.
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002015; VWF_A.
Pfam; PF01839; FG-GAP; 5.
Pfam; PF00357; integrin_A; 1.
Pfam; PF00092; Vwa; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRINTS, PRO1185, INTEGRINA.
PRINTS, PR00453, VWFADOMAIN.
SMART; SM00191, Int. alpha; 4.
PR03175, YMA; 1.
PROSITE; PS00242, INTEGRIN ALPHA;
PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative 173;
                                                                                                                                                                                                                                                                                                                       Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Simi
tes 645;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Integrin.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                           1020
                                                                                                                                           1080
                                                                                                                                                                                                         S
                                                                                                                                                                                                        RESULT
090XH4
                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                કે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                   ઠે
                                                            g
                                                                                        ઠે
                                                                                                            셤
                                                                                                                                   ठे
                                                                                                                                                               용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             959
                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 796
                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                       377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   854
                                                                                                                                                                                                           120
                                                                                                                                                                                                                                 137
                                                                                                                                                                                                                                                                                   197
                                                                                                                                                                                                                                                                                                                                       257
                                                                                                                                                                                                                                                                                                                                                                                        317
                                                                                                                                                         9
                                                                                                                                                                               79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SLVGTPLSAFGNLRPVLARDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901 Q'EELPVKYAVYMVVTSHGYSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661 YDLALDSGRPHSRAVFNETKNSTRROTOVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SCALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        197 SNLELNAEVMYWNDGEDSYGTTYTFSHPAGLSYRYVAEGQKGGQLRSLHLTCDSAPVG--
                                                                                                                                                                                                         RLQVPVEAVNMSLGLSLAAMTSPOLLACGPTVHOTCSENTYVKGLCFLFGSNLRQOPQK
                                                                                                                                                                                                                       RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                           TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                            NFEALKTIONOLREKIFATEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                             GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QNTGMMESNANVKGTQ1GAVFGASLCSVDVDSNGSTDLVL.IGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                          FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                 Gaps
                                                                                                                                 9
                                                                                                                                  Indels
                                                       EMBL/GenBank/DDBJ databases
                                                                                 A17B484FEFC79EB6
                                                                                                     Query Match 59.04; Score 3470; DB 4; Best Local Similarity 61.04; Pred. No. 1.7e-249; Matches 689; Conservative 142; Mismatches 292;
                                           Straubberg R.;
Submitted (SEP-2002) to the
EMBL; BC038237; AAH38237.1;
SEQUENCE 1169 AA; 128521
                     FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                557
       (1)
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                           H
                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                       198
                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                             121
```

<u>.</u> ۵

7

Gaps

8 8

õ g 8 q ò 유 8

g

8 &

8 6 6 6

6 B

180 198 240

120

```
RARA CON TANDON TO THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF THE PART OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  974 DVPVSINFWVPIELKGEAVW-TVMVSHPQNPLTQCYRNRLKPTQFDLLTHMQKSPVLDCS 1032
                                                                                                                                 420
                                                                                                                                                                                                       480
                                                                                                                                                                                                                                          498
                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                  557
                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                             99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    829
                                                                                                                                                                                                                                                                                                                                                                                        617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      855
PRGORARWOCDAVLYGEQGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                   P-GVGSRWHCGTTLHGEQGHPWGRFGAALTVLGDVNGDSLADVAIGAPGEEERRGAVYIF
                                                                                                                                                                                                                                                                                                                                                    HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                  FDLALDHGRLSTRAIFKETKTRALTRVKTLGLNKHCESVKLLLPACVEDSVTPITLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SLVGTPLSAFGNLRPVLAEDÅQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NFEALKTIONOLREKIFAIEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                          GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                      QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                           PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YDLALDSGRPHSRAVFNETKWSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GPREFNVTVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQ------NQRSQRSWR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NNMPRTNKTEFOLELPVKYAVYMVVTSHGVSTKYLNFTASE-NTSRVMQHQYQVSNLGQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GOGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1093 GGEAPLRAQTKTVLEMYKVHNPVPLIVGSSVGGLLLLAIITAILYKAGFFKRQYKEMLBE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alpha D integrin.
Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAY-2000 (TrEMBLrel. 13,
01-MAY-2000 (TrEMBLrel. 13,
01-MAR-2003 (TrEMBLrel. 23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1069
                                                       301
                                                                                                                             361
                                                                                                                                                                 379
                                                                                                                                                                                                      421
                                                                                                                                                                                                                                          439
                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                              499
                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                       558
                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                               618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q9QYE7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
090YE7
                   g
                                                                                         유
                                                                                                                                                            엄
                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                             ò
                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                  ठे
                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ठे
```

```
379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQINN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                380 AFLYPPHTRPTFINMSQENVDMRDSYLGYSTAVAFWKGVHSLILGAPRHQHTGKVVIFTQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        500 -GVRGRWQCEATLHGEQGHPWGRFGVALIVLGDVNGDNLADVAIGAPGEEESRGAVYIFH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GASRLEIMPSPSORVTGSQLSLRLQYFGQSLSGGQDLTQDGLVDLAVGAQGHVLLLRSLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEALKTIQNOLREKI FAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      320 FAALRSIQRQLQEKIFAIEGTQSRSSSFQHEMSQEGFSSALTSDGPVLGAVGSFSWSGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            362 VFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFRQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    440 EARHWRPKSEVRGTQIGSYFGASLCSVDVDRDGSTDLVLIGAPHYYEQTRGGQVSVFPVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    62 LQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQKF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDXLTDVAIGAPGEEDNRGAVYLFH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 NLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPIR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                              DB 11; Length 1161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13;
                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 55.0%; Score 3236.5; DB 11; Lengt Best Local Similarity 57.5%; Pred. No. 4.4e-232; Matches 648; Conservative 163; Mismatches 303; Indels
                  STRAIN=Sprague-Dawley;
O'Brien M.M., VanderVieren M., Kilgannon P.D., Dietsch G
Gallatin W.M.;
"Cloning of rat alpha D, a novel beta 2 integrin.";
Submitted (AUG-1997) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                        1161 AA; 126600 MW; 2258491A984A705E CRC64;
                                                                                                            EMBL, AF021334; AAF21241.1; EMBL, AF021341.1; EMBL, AF021334; AAF21241.1; EMSCP, P11215; 1BHO.
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002035; VWF-A.
Pfam; PF01839; FG-GAP; 5.
Pfam; PF001857; integrin_A; 1.
                                                                                                                                                                                                                                                                                                                            PROSITE; PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                                                                                                                                      SMART; SM00191; Int_alpha; 4.
SMART; SM00327; VWA; 1.
                                                                                                                                                                                                                                                  PRINTS; PR01185; INTEGRINA. PRINTS; PR00453; VWFADOMAIN
SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                      Integrin.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    662
```

ę,

```
AALYKLGFFKRQYKDMM-SEGGPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                               992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1050
                                                     180
                                                                      199
                                                                                         239
                                                                                                                                                                 357
                                                                                                                                                                                   370
                                                                                                                                                                                                                                          473
                                                                                                                                                                                                                                                           490
                                                                                                                                                                                                                                                                                                546
                                                                                                                                                                                                                                                                                                                  593
                                                                                                                                                                                                                                                                                                                                                      652
                                                                                                                                                                                                                                                                                                                                                                        662
                                                                                                                                                                                                                                                                                                                                                                                           712
                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                8
                                                                   셤
                                                                                                         셤
                                                                                                                           Š
                                                                                                                                          g
                                                                                                                                                                ઠે
                                                                                                                                                                               셤
                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                  8 6
                                                                                                                                                                                                                                                                                                                                                 ∂
                                                                                                                                                                                                                                                                                                                                                                   8 8
                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                            કે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
               ò
                                                    ઠે
                                                                                       8
                                                                                                                                                                                              37;
                                                                                                                                              RLNQTVIWDRPQVTFSENLSS-TCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                  1029
                                                                                                                                                                                    PFFGIQEEFNATLKGNLSFÖWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTF 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IKLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQ 119
                                                                                 --LRSSSCSINHPIFREGAKTTFMITFDVSYKAFLGDRLLLRAKASSENNKPDTNKTAFQ 912
                795
                                                                      901
                                                                                                           LELPVKYAVYMVVTSHGVSTKYLNFTASENTSR-VMQHQYQVSNLGQRSLPISLVFLVPV 960
                                                    854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               79
                                            FNLDTENAMTFQENA - RGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEP
          GALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEFQ
LVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGG
                                   PREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             91; Gaps
                                                                                                                                                                                                                                                                                                                                                               Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tch
al Similarity 33.9%; Pred. No. 2.9e-104;
396; Conservative 220; Mismatches 461; Indels 91;
                                                                                                                                                                                                                       TKVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKDMM 1126
                                                                                                                                                                                                                                  1161 AA; 128240 MW; 86B102F7B209E431 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                    Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                         Ź
                                                                                                                                                                                                                                                                                         1161
                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
STRAIN=DBA/24; TISSUE-Spleen;
MA R.2. Teuscher C.;
Submitted (MAX-1998) to the EMBL/GenBa
EMBL; AF065902; AAD25885.1;
HSSP; P20701; ILFA.
MGD; MGI:96606; Itgal.
InterPro: IPR000413; Integrin_alpha.
InterPro: IPR000413; VWF_A.
Pfam; PF001839; FG-GAP, 5.
Pfam; PF001839; FG-GAP, 5.
Pfam; PF00185; Integrin_A; 1.
PRINTS; PR00185; INTEGRINA.
PRINTS; PR00185; INTEGRINA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                                                                                                                                                           Created)
                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                  Mus musculus (Mouse)
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SMART; SM00191; Int_alpha; 5
SMART; SM00327; VWA; 1.
                                                                                                                                                                                                                                                                                                        01-NOV-1999 (TrEMBLrel. 12, 01-NOV-1999 (TrEMBLrel. 12, 01-JUN-2002 (TrEMBLrel. 21,
                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                    01-NOV-1999 (TrEMBLrel. 01-JUN-2002 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                   Integrin alpha L.
ITGAL.
                                                     96.
                                                                                                                             913
                                                                                                                                                                                                       1030
                                                                                                                                                                                                                         1080
                                                                                                                                                                                                                                           1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24
             737
                                                                                                                                                                                    1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                   782
                                                                       842
                                                                                         855
                                                                                                           902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 396
                                                                                                                                              961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Match
                                                                                                                                                                                                                                                                                                 Q9WTV4;
                                                                                                                                                                                                                                                                      RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                     셤
                                                                                                                       g
                                                                                                                                                             요
                                                                                                                                                                                                  g
                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                  g
                                                                    ò
                                                                                                         ò
                                                                                                                                          ò
                                                                                                                                                                                   ò
                                   ò
```

767 779 980 939 940 YQV---SNLGQRSLPISLVFLVPVRLNQTVIWDRPQ--VTFSENLSS----TCHTKE-RL 989 138 296 309 356 369 414 429 472 489 532 545 592 603 651 661 711 720 821 831 887 ELNGTVHCENENSSLQEDNSAATHIPVLYPVNILTKEQENSTLYISFTPKGPKTQQVQHV 947 238 LIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALIT 604 RVVVLSSRPVVDVVTELSFSPEEIPVHEVECSYSAREEQKHGVKLKACFRIKPLTPQ--F : | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | | : | : | | : | : | | : | : | | : | : | | : | : | | : | | : | : | | : | : | | : | : | | : | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : 310 KILDTFEKLKDLFTDLORRIYAIEGTNRQDLTSFNMELSSSGISADLSKGHAVVGAVGAK 533 NRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQG -QGAVYIFNGKPG-GLSPQPSQRIQGAQVFPGIRWFGRSIHGVXDLGGDRLADVVVGPEG HVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAG-EVRVCLHVQKSTRDRLR SPIVLRLNFSLV - - - GTPLSAFGN - LRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSI TFSFMSLDCLVVGGP-----REFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQN 822 QRSQRSWRLACESASSTEVSGAL-KSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKL --PHSRMPVSCEEL--TEGSSLLTKTLKCNVSSPIFKAGQEVSLQVMFNTLLNSSWEDFV 881 LLKANVISEN-NMPRINKIEFQLELPVKYAVYMVVISHGVSIKYLNFIASENISRVMQHQ PSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHL 297 FOINNFEALKTIONQLREKIFALEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSY DWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQHIG 415 LVAMFR--QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRG GOVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEED |:| GRVFTY---QRRQSLFEMVSELQGDPGYPLGRFGAAITALTDINGDRLTDVAVGAPLEE-EGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPV 120 KPPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEE ONRPAYQECMKGKVDLVFLFDGSQSLDRKDFEKILEFMKDVMRKLSNTSYQFAAVQFSTD LLTDGEKF - - GDPLGYEDVI PELDREGVIRYVI GVGDAFRSEKSRQELNTVASKPPRDHV SSPARS-----GPLRLMSSASLAVEWTLSNSGEDAYWVRLDLDFPRGLSFRKVEMLQ-FRIHFTFKEF-ONVPNPRSLIKPITOLLGRTHTATGLRKWYRELFNITNGARKNAFKILF

651

720 767

g

DDT T T DD T T T DD T T T DD T T T DD T T T DD T T T DD T T T DD T T T DD T T T DD T T DD T T DD T T DD T T DD T T DD T T DD T DD T DD T T DD T T DD T DD T T DD

```
991 SHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLL 1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1051 IVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITA 1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   888 ELNGTVHCENENSSLQEDNSAATHIPVLYPVNILTKEQENSTLYISFTPKGPKTQQVQHV 947
                                                                                                                                                                                                                                                                                                 TFSFMSLDCLVVGGP-----REFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQN
                                                                                                                                                                                                                                                                                                                                                                                                                  QRSQRSWRLACESASSTEVSGAL-KSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKL
                                                                                                                                                                                                                                                                                                                                                                                                                                        --PHSRMPVSCEEL--TEGSSLLTKTLKCNVSSPIFKAGQEVSLQVMFNTLLNSSWEDFV
                                                                                                                                                                                                                                                                                                                                                                         SSPARS------GPLRLMSSASLAVEWTLSNSGEDAYWVRLDLDFPRGLSFRKVEMLQ-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      881 LLKANVTSEN-NMPRINKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQ
 GQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEED
                     HVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAG-EVRVCLHVQKSTRDRLR
                                                                                                                                                            S-----SEAEPCLPGV--OFRCPIVF---RWEILIQVTGTVELSKEIKAS-STLS
                                                                      NRGAVYLFHGTSGSG1SPSHSQR1AGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQG
                                                                                                                                                                                                         EGGIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPV
                                                                                                                                                                                                                                                                             SPIVLRLNFSLV---GTPLSAFGN-LRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           940 YQVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQ----VTFSENLSS----TCHTKE-RLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cyprinus carpio (Common carp).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Cyprinus.
NCBI_TaxID=7962;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          carp.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            common
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE-Peritoneal exudate cells;
Kimura M., Makao M., Miura C., Pujiki K., Yano T.;
"Molecular cloning of a leukocyte integrin from the comm
Submitted (SEP-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1111 ALYKLGFFKRQYKDMM-SEGGPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT; 1196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HSSP; P20701; ILFA.
InterPro; IPR001969; Aspprotease site.
InterPro; IPR000413; Integrin_alpha.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; AB048536; BAB39134.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
 473
                                                                      533
                                                                                                                                        593
                                                                                                                                                                                                           652
                                                                                                                                                                                                                                             662
                                                                                                                                                                                                                                                                               712
                                                                                                                                                                                                                                                                                                                                                 768
                                                                                                                                                                                                                                                                                                                                                                                  780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           O9BTF1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            σ
                              음
                                                                    ઠે
                                                                                               쉽
                                                                                                                                     ઠે
                                                                                                                                                                     g
                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                ሯ
                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     : ||:||:| : :: |: ||:| : :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24 YNLDTRPTQSFLAQAGRHFGYQVLQIEDG-VVVGAPGE---GDNTGGLYHCRTSSEFCQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IRLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        80 VSLH-GSNHTSKYLGWTLATDAAKGSLLACDPGLSRTCDQNTYLSGLCYLFPQSLEGPML
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQHIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FRIHFTFKEF-QNNPNPRSUIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LLTDGEKF--GDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  297 FQINNFEALKTIQNQLREKIPAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LVAMFR--QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FNLDTENAMTFQENA-RGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                         Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1160;
                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

A MA R.Z., TISSUE-Spleen,

A MA R.Z., TISSUE-Spleen,

Submitted (MAY-1998) to the EMBL/GenBank/DDBJ databases.

R MSD; PC0701; 1LFA.

R HSSP; P20701; 1LFA.

InterPro; 1PR000413; Integrin alpha.

R InterPro; 1PR00135; VWF.A.

Pfam; PF00139; FG-GAP; S.

R Pfam; PF00139; FG-GAP; S.

R Pfam; PF00135; Integrin A; 1.

R PRINTS; PR00135; VWF.A.

R PRINTS; PR00135; VWF.A.

R SWART; SM00191; Int_alpha; S.

R SWART; SM00191; Int_alpha; S.

R PROSITE; PS00242; INTEGRIN ALPHA; 1.

R PROSITE; PS00242; VWFA; 1.

R PROSITE; PS00242; VWFA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                      Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 1513; DB 11;
Pred. No. 1.8e-103;
9; Mismatches 464;
 LALYKVGFFKRNLKEKMEADGGVPNGSP 1132
                                                                                      1160
                                                                                                                        Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                219;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 33.8%;
Matches 394; Conservative 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IITDGEASDKGNISAAHD-
                                                                                    PRELIMINARY;
                                                                                                                    01-MAY-2000 (TrEMBLrel.
01-MAY-2000 (TrEMBLrel.
01-JUN-2002 (TrEMBLrel.
Integrin alpha L.
                                                                                                                                                                                                           Mus musculus (Mouse)
                                                                                                                                                                                                                                                           NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          415
11,05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      310
                                                                                    Q9R200
                                                  RESULT
                                                                    Q9R200
```

g ે

ò 셤 ò Q ò g ò g ò 8 ò 8 δ

1045

880

887

963

934

881

1075

```
TDGS-----ILFAAVQFST 117
                                                                                                                                                                         EFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILF
                                                                                                                                                                                                                                   QTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQ-----C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26 YNLDVRGARSFSPPRAGRHFGYRVLQV-GNGVIVGAPGE---GNSTGSLYQCQSGTGHCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PIRLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQP
876 LGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGV-STKYLNFTASENTSR
                                                                                       1 FNLDTENAMIFQ - - ENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSE
                                                                                                                                                                                                                                                                                                                        DIPFFGIQEE - - FNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels 175; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                1056 KYSFYEFRKDNVFSISAELNYNTSLYNQTS-----SELKYNPH-----
                                                                                                                                                                                                                                                                                                                                                                                                                                     1095 SQTEVKVE-FVVPPSLMLIVCTGAVGGFFFLIILFELLKCGFFKRNRPD 1143
                                                                                                                                                                                                                                                                                                                                                                                                             SQTETKVEPFEVPNPLPLIV-GSSVGGLLLLALITAALYKLGFFKRQYKD 1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 4; Length 1086;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.

TISSUB-Lymph;
Strausborg R.;
Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; BC008777; AAH08777.1; -.
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR00203; VWF_A.
Pfam; PF00357; integrin_A; 1.
Pfam; PF00357; integrin_A; 1.
Pfam; PF00185; INTEGRINA.
PRINTS; PR01185; INTEGRINA.
SWART; SM00327; VWA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              l protein.
1086 AA; 119223 MW; F6FF2546E8C632F9 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
23.0%; Score 1350.5; DB 4;
Best Local Similarity 32.1%; Pred. No. 2.1e-91;
Matches 375; Conservative 187; Mismatches 432;
                                                                                                                                                   935 VMQHQYQVSNLGQRSLPISLVFLVPVR------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PVTLR-GSNYTSKYLGMTLA--TDP-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-DEC-2001 (TrEMBLrel. 19, 01-DEC-2001 (TrEMBLrel. 19, 01-MAR-2003 (TrEMBLrel. 23, Hypothetical protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hypothetical
SEQUENCE 10
                                                                                                                                                                                                                                                                                                                        1018
                                                                                                                                                                                                                                                                                                                                                                                                             1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    119
                                                                                                                                                                                                                                     964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      096нв1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              096HB1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 1
Q96HB1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SO WE WAY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                    g
                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                              δ
                                                                                                                                                   ሯ
                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                    39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   309
                                                                                                                                                                                                                                                                                                                                                                                                                                 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             429 RAEHTGLVTLFTKNONTWIVTSNINGEQIGSYFGASLSLLDVDSDGDSDFLLVGAPLFYQ 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       524 AIGAPGEEDNRGAVYLFHGTSGSGISPSHS-QRIAGSKLSPRLQYFGQSLSGGQDLTMDG 582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          657 TERTSS---TGSLEKKLNVSLNLNVDVVRGMSRGFFDQSSVSSRTLQQSVLLDSGSSCFN 713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    699 LKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGND 758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FSIFMLRCVADTVSPLKIRMNFS--QTEMLS-GNSVAVLDVHSRTEENVEVPFQRNCNSN 770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 771 NSCVADLKLNFSFTN-NTLVVENQAHFTVQVSLANPGDDSYNTSIVLHYPEGISLSKFDA 829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           819 LONORSORSWRLACESAS$TEVSGALKSTSCSINHPIFPENSEVTFNITFDV---DSKAS 875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFS 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPL 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RYOHIGLVAMFRONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE 468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTRGGOVSVCPLPRGORARWQCDAVLYGEQ-----GOPWGRFGAALTVLGDVNGDKLTDV 523
                                                                                                                                                                                                                                                                                                                                              99
                                                                                                                                                                                                                                                                                                                                                                                    88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CEPIRLOVP----VEAVNM$LGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       89 CQ--RIQRPGSESVRFFGMSAAVSSAALTS----CSPYFPHECDGNSYLNGVCYQFSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFN-ITNGARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAFKILFLLTDGEKFGDPLGYED - VIPELDREGVIRYVIGVGDAFRSEKSRQELNTVAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        350 LSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMN-DAYLGYAAAIILRNRVQSLVLGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           643 OKSTRDRLREGOIOSV - - VTYDLALDSGRPHSRAVFNETKNSTR - - RQTQVLGLTQTCET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        159 NICODDLSITESFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVST
                                                                                                                                                                                                                                                                                                                                            1 FNLDTENAMTFQENARG-FGOSVVQLQ-GSR--VVVGAPQEIVAANQRGSLYQCDYSTGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHV
                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                      144;
                                                                                                                                                                                                                                                         Length 1196;
                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                      30234; VMFA; 1.
1196 AA; 132477 MW; 9369C807E7DCA53B CRC64;
                                                                                                                                                                                                                                                       Match 23.7%; Score 1395; DB 13; Local Similarity 31.2%; Pred. No. 1.2e-94; es 371; Conservative 227; Mismatches 448;
             Fram; PF001839; FG-GAP; 5.
Pfam; PF001839; FG-GAP; 5.
Pfam; PF00185; integrin_A; 1.
PRINTS; PR01185; INTEGRIA.
PRINTS; PR00185; VWPADOMAIN.
SMART; SM00191; Int_alpha; 5.
SMART; SM00191; Int_alpha; 5.
PROSITE; PS00141; ASP PROTEASE; 1.
PROSITE; PS50234; VWPĀ; 1.
                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        310
                                                                                                                                                                                                                                                                                                                                                                                      32
                                                                                                                                                                                                                                                                                                                                                                                                                               57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              714
                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
ò
                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

37;

28 81 118 103 178

```
CEPIRLQVP----VEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGS
                                                                                                                                                                                                                                                                                                                                                                                                                                   NLROOPOKFPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFN-ITNGARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            200 AVQFSTEIRTVFDFNDYQNGSAEEKLMKE-RHMKSLTNTYKAINYVLKNVLNSVSSGADP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAFKILFLLTDGEKFGDPLGYED--VIPELDREGVIRYVIGVGDAFRSEKSRQELNTVAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KPPRDHVFQINNFEALKTIQNQLREKIFAIBGTQTGSSSSFEHEMSQEGFSAAITSNGPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YE-QTRG-GQVSVCPLPRGQRARWQCDAVLYGEQ--GQPWGRFGAALTVLGDVNGDKLTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YQSQPRAEGRLYVYTL-----SEQYSQKTLQSTTGRFATSLASLKDLNGDGLSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VAIGAPGEEDNRGAVYLFHGTSGSGISPSHS-ORIAGSKLSPRLQYFGQSLSGGQDLTMD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 FNLDTENAMTFQENARG-FGQSVVQLQ-GSR---VVVGAPQEIVAANQRGSLYQCDYSTGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LSTVGSYDWAGGVFLYT - - - SKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHY
                                           Vertebrata; Euteleostomi;
Ostariophysi; Cypriniformes;
                                                                                                                                                                                                                                                                                                                                 DB 13; Length 1187;
                                                                                                      Query Match 22.9%; Score 1344.5; DB 13; Lengt Best Local Similarity 31.3%; Pred. No. 7e-91; Matches 373; Conservative 209; Mismatches 453; Indels
  annotation update)
                       Cyprinus carpio (Common carp).
Bukaryota; Metazoa; Chordata; Craniata;
Actinopterygii; Neopterygii; Teleostei;
Cyprinidae; Cyprinus.
  Last
  23,
 01-MAR-2003 (TrEMBLrel.
                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                              32
                                                                                                                                                                                                                                                                                                                                                                                                                    57
                                                                                                                                                                                                                                                                                                                                                                                                                                                               113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           523
  셤
                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SHSD--FLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNH 1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       416
                                                                                                                                                                 522
                                                                                                                                                                                                                                                                                      651
                                                                                                                                                                                                                                                                                                                                711
                                                                                                                                                                                                                                                                                                                                            694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQ 822
                                                                                                                                                                                                                                                                                                                                                                                                                                  QHQYQV---SNLGQRSLP-ISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTK--ERLP 990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ------FRQEILVQVIGTLELVGELEAS-SM 964
SYKTEFDFSDYVKRKDPDALLKHVKHMLLLTNTFGAINYVATEVFREELGARPDATKVLI 177
                                                                                                                                                                                                                                                        -QGAVYIFNGRHG-GLSPQPSQRIEGTQVLSGIQWFGRSIHGVKDLEGDGLADVAVGAES
                                                                                                                                                                                                                                                                                                KPHSQIPVSCEELPEESRL4SAAL---SCNVSSPIFKAGHSVALQMMFNTLVNSSWGDSV
                                                                          291 AGGFLDLKADLQDDTFIGNEPLTPEVRAGYLGYTVTWLPSRQKTSLLASGAPRYQHMGRV
                                                                                                                                                                                                                                                                                                                               EGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPV
                                                                                                                                                                                                                                                                                                                                                                         SPIVLRLNFSL---VGTPLSAFGN-----LRPVLAEDAQRLFTALFPFEKNCGNDNICQ
                                                                                                                                                                                                                                                                                                                                                                                      809 ELHANVTCHNEDSDLLEDNSATTI---IPILYPINILIQDQEDSTLYVSFTPKGPKIHQV
                    LLTDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQ
                                  :|||:||:||:|
----IIRYIIGIGKHFQTKESQETLHKFASKPASEFVKI
                                                                                                         AGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQHIGLV
                                                                                                                                                    AMFR - - QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQ
                                                                                                                                                                                              VSVCPLPRGQRARWQCDAV--LYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEED
                                                                                                                                                                                                                                         533 NRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQG
                                                                                                                                                                                                                                                                                    HVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVV-KGKEAGEVRVCLHVQKSTRDRLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                               RSORSWRLACES -- ASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LLKANVTSENN-----MPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALI
                                                              INNFEALKTIONOLREKIFAİEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Created)
Last sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAALYKLGFFKRQYKDMMSEG-GPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FIVLYKVGFFKRNLKEKMEAGRGVPNGIP 1052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                         IITDGE--ATDSGNIDAAKD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    924 DAAEPCLPGALFRCPVV--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17,
17,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (TrEMBLrel. (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q98TF0;
01-JUN-2001
01-JUN-2001
                                         178
                                                                                   231
                                                                                                                                                                                                                                                                                    593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1049
                                                                                                           359
                                                                                                                                                    417
                                                                                                                                                                                               475
                                                                                                                                                                                                                     411
                                                                                                                                                                                                                                                               465
                                                                                                                                                                                                                                                                                                                               652
                                                                                                                                                                                                                                                                                                                                                    581
                                                                                                                                                                                                                                                                                                                                                                         712
                                                                                                                                                                                                                                                                                                                                                                                              640
                                                                                                                                                                                                                                                                                                                                                                                                                    763
                                                                                                                                                                                                                                                                                                                                                                                                                                          695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q98TF0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 11
Q98TF0
ID Q98TF
AC Q98TF
DT 01-JU
                                                                             8
                                                                                                                      9 6 B
                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                   ò
                                      유
                                                       े
                                                                                                     ò
                                                                                                                                                                                          $ B
                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                  8 8 8
                                                                                                                                                                                                                                                                                                                                             8 8
                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

43;

56 88 112

199

289

309

349

529 353

296

236

411

116

353

293

```
412 HIGLVAMFRQ--NTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQ 469
                                                                                                                                                                                                                                                                                                                       644 -KPHSHVPVGCEELPEEAVVHS-RALSCNVSSPIFGEDSMYDIQVMFNTLQKGSWGDFIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                470 TRGGOVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPG
                                                                                                                                                                                                                                                                                                                                                                            EEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVG
                                                                                                                                                                                                                                                                                                                                                                                               IEDPVSPIVLRINFSL---VGTPLS--AFGNLRPVLAEDAQRLFTALFPFEKNCGNDNIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ODDLSITES FMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EADLKLAFSDMRSKILRLTPSASLSVRLTLRNTAEDAYWVQVTLSFPQGLSFRKVEIL--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORSORSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          934 RVMQHQYQV----SNLGQRSLPISLVFLVPVRLNQTVI---WD---RPQVTFS-ENLSST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SDEAE----ROEILVOVNGMVELRGTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGL
                                                                                                                                                  GSYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQ
                                                                                                                                                                                 GAKDWAGGFLDLKADLKSSTFVGNEPLTVESRAGYLGYTVTRLPSRGTMSLLATGAPKYQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                      AQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAG-EVRVCLHVQK--ST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RDRLREGQI QSVVTYDLALDSGR PHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LKANVTS-----ENNMPRINKTEFQLELPVKYAVYMVTSHGVSTKYLNFTASENTS
FKILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPR
                                                                            DHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTV
                                                                                               : | : | | | : : | : | : | : | | | EFVKILDTFEKLKDLFTELQKKIYVIEGTSKQDLTSFNMELSSSGISADLSEGHGVVGAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LLLALITAALYKLGFFKR 1120
||| || |||||||||
LLLFLIFIALYKVGFFKR 926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08,
08,
23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (TrEMBLrel. C
(TrEMBLrel. C
(TrEMBLrel. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1998
01-NOV-1998
01-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          606
                                                                                                                                                                                                                                                                                                                                                                              530
                                                                                                                                                                                                                                                                                                                                                                                                                 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                        290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        702
                                                                                                                 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        707
                                                                            294
                                                                                                                                                    354
                                                                                                                                                                                         177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 13
088340
ID 088340,
AC 088340,
DT 01-NOV-1
DT 01-MAR-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                 8 S
                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                             a
                                                                                                                                                                                 g
                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                        ે
                                 셤
                                                                          Š
                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EVHHSFISSYHO -- IIMCLLNKHLFFSPELSAVQTRTTGRSLWVC-----VSSISTGEI 1026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -----SIAVCQRIQCDIPFFGIQEE 1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               233
                                                                                                                                                                                                                                                                   819
                                                                                                                                                                                                                              813
                                                                                                                                                                                                                                                                                                                                                                                                                     928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             974
       641
                                          651
                                                                                                                 708
                                                                                                                                                        753
                                                                                                                                                                                           761
                                                                                                                                                                                                                                                                                                        RKVSTLQNQRSQRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDV--- 870
                                                                                                                                                                                                                                                                                                                                             871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      174 MOYSEEFRIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNA
       GLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLH
                           | |::|| |::|| ::|| ::|| ::|| |::|| |::|| |::|| |::|| |::|| |::|| |::|| |::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::| 
                                                                             DSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVTSHGV-STKYLNFTAS
                                                                                                                                                                                                                                                                                                                                                                                                     | | | :::|| :||| :|||| DYDWSDRMEMTITANSDNNGNM---SDMSVRRSIPVQFAVELAISLVAEDSVTYLNFSLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ENTSRVMQHQYQVSNLGQR$LPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ---SFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPG-QGA
                                                                                                                                                        TLKLOLPNCIEDPVSPIVLRLNFS----LVGTPLSAFGNLRPVLAEDAQRLFTALFPFEK
                                                                                                                                                                                                                                NCGNDNICQDDLSITFSFM$LDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ol-MAR-2003 (TrEMBLrel. 23, Last sequence update)

Uymphocyte function-associated antigen 1 (Fragment).

Bos taurus (Bovine).

Eukaryota: Merazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;

NGH TRAYTOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD 1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           86;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Thumbikat P., Kannan M.S., Maheswaran S.K.;
"Sequence of the alpha subunit of bovine lymphocyte function-associated antigen 1.";
EMBL, AF440778; AAN63636.1;
NON TER 1 1
NON TER 927 AA; 102523 MW; 02E2CF09917081EC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 927;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 21.6%; Score 1269; DB 6; Best Local Similarity 34.6%; Pred. No. 2e-85; Matches 338; Conservative 168; Mismatches 386;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-MAR-2003 (TrEMBLrel. 23, 01-MAR-2003 (TrEMBLrel. 23, 101-MAR-2003 (TrEMBLrel. 23, 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PSHSDFLAELRKAPVVNC-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FNATLKGNL-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1073
                                                                                                                                                                                           709
                                                                                                                                                                                                                                                                     762
                                                                                                                                                                                                                                                                                                          814
                                                                                                                                                                                                                                                                                                                                               820
                                                                                                                                                                                                                                                                                                                                                                                  871
                                                                                                                                                                                                                                                                                                                                                                                                                                                          930
                                                                                                                                                                                                                                754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OOHZVO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                      6 8 6 8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 & B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                     d
                                                                             ò
                                                                                                             g
                                                                                                                                            ò
                                                                                                                                                                               q
```

643 881

821

933

754

701

982 813 1102

908

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=98056820; PubMed=9394838;
Brenan M., Rees D.JG.;
Brenan M., Rees D.JG.;
Brenan M., Rees D.JG.;
Sequence analysis of rat integrin alpha El and alpha E2 subunits:
tissue expression reveals phenotypic similarities between
intraepitherial lymphocytes and dendritic cells in lymph.";
EMEL; AF020046; AAC23663.1; -..
HSSP; P11215; 1BHQ.
InterPro; IPR00413; Integrin_alpha.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-NOV-1998 (TrEMBLrel. 08, Created)
01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pfam; PF01839; FG-GAP; 4.
Pfam; PF00137; integrin A; 1.
Pfam; PF00092; vwa; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Integrin alpha B2 (Fragment)
Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRINTS; PR01185; INTEGRINA.
PRINTS; PR00453; VWFADOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1046
                                                                       597
                                                                                                                                                                654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 14
                                                                                                                 셤
                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DTT DDT T L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L DTT L 
                                                                       ò
                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STGSCEPIRLOVPVEAVNMSLGLSLAATT -- SPPQLLAC-GPTVHQTCSENTYVKGLCFL 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          33 LTPNLDLQAQAYFSDLEGFLDPGAHVDSGDYCRSKGGSTGEEKKSARRRTVEEEDBEED 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     132 DSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEOL--KKSKTLFSLMOYSEEFRIHFTFKEF 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LGYEDVIPELDREGVIRYVÍGVGDAFRSEKSRQELNTVASKPPRDHVFQINNFEALKTIQ 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          368 KEKSTFINMT-RVDS-DMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGM 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     - SEDAFVRRIEGEGMGSYFGSVLCPVDIDMDGTTDFLLVAAPFYHIRGEEGRVYVYQVPE 547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -QDASFSLAHTLSGHPGLTNSRFGFAMAAVGDINQDKFTDVAIGAPLEGFGAGDGASYGS 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -----PQE 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WESNA----NVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPR 482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP-----GEEDNRGA 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              537 VYLFHGTSGSGISPSHSQRİAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLL 596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20 FNMDVDWAWVTALQPGAPAVLSSLLHLDPSN-----NQTCLLVARRSSNRNTAALYRCAI 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SKLQQRIVHMEGT---VGDALQYQLAQTGFSAQILDKGQVLLGTVGAFNWSGGALLYSTQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTEIAIVLDGSGSIEPSDFQKAKNFISTWMRNFYEKCFECNFALVQYGAVIQTEFDLQES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLLTDGEKFGDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 313 INLTIVINSPKMQGVVRFAIGVGDAFKNNNTYRELKLIASDPKEAHTFKVTNYSALDGLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               310 NQLREKIFAIEGTQTGSSS$FEHEMSQEGFSAAITSNGP-LLSTVGSYDWAGGVFLY-TS
                                              Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  205; Gaps
                                                                                                                                                                                                                 subunits:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 11; Length 1167;
                                                                                                                                MEDLINE=98056820; PubMed=9394838;
Brenan M., Rees D.JG.st
Brenan M., Rees D.JG.st
Brenan M., Rees D.JG.st
Lissue expression reveals phenotypic similarities between
intraepithelial lymphocytes and dendritic cells in lymph.";
Eur. J. Immunol. 27:3070-3079(1997).
Eur. AC23662.1;
HSSP; P11215, 1BHO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
19.6%; Score 1154.5; DB 11; Length
Best Local Similarity 28.9%; Pred. No. 1e-76;
Matches 356; Conservative 214; Mismatches 458; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 FNLDTENA - - MTFQENARGFİGQSVVQLQGSRVVVGAPQEIVAANQRGS -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SMART; SM00191; Int_alpha; 4.
SMART; SM00327; VWA; 1.
PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS00234; VWFA; 1.
SEQUENCE 1167 AA; 128970 WW; D88A2C38ACDC2AAE CRC64;
                                                                                                                                                                                                                                                                                                                                                 InterPro; IRR000413; Integrin_alpha.
InterPro; IPR002035; VWF_A.
Pfam; PF01039; FG-GAP; 4.
Pfam; PF001035; integrin_A; 1.
Pfam; PF001092; vwa; 1.
PRINTS; PR01185; INTEGRINA.
PRINTS; PR00453; VWFADOMAIN.
                      Rattus norvegicus (Rat).
Eukaryota, Metazoa, Chordata,
Mammalia, Eutheria, Rodentia,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             110 FGSNLRQOPOKFPEALRG-
  Integrin alpha El
                                                                                           NCBI TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   483
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 음
장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ያ ያ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

```
986 KERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTS 1045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HNHLLIVSTA-----EILFNDSVFTLLPGQGAFVRSQTETKVEPF----EVPNPLPLIV 1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            972 SPSDHKEFFFNVHGENLFGAVFQLQICVPIKLQDF-----QIVRVKNLTKTQDHTECTQ 1025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1066 HTKQLLRDVSELPILGEISFNKSLYEGLNAE-----NHRTKITVIFLKEEETRSLPLII 1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              971
                                                                                                                                                                                                                                                                                                                                                                                   969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            871 DSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVTSHGVSTKYLNFTASE 930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NISRVMQHQYQVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSST----CHT 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           751 FEKNCGNDNICQDDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   811 LSYRKVSTLQNQRSQRSWRLACESASSTEVSGALKSTSCSINHPIPPENSEVTFNITPDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             : ::: | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| 
                                                                                                                                                                                                                                                                                      LRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKS----TRDRLREG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           716 FLNFTVDVDV------TKQRQRLQCEDSSGCQSCLRKWNGGSFLCEHFWLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     697 ETLKLOLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLR----PVLAEDAQRLFTALF--P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            761 STEEL----CEEDCFSNITIKVTYE-----FQTSGGRRDYPNPTL--DHYKEPSAIFQLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1096 GSSVGGLLLLALITAALYKLGFFKRQYKDMMSE
```

```
--ASVLVMNCKIGHPIL-KRSSVNVSVTWQLEESIFPNRTADITVTISNSNEKSLARETH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PFam; PP00092; vwa; 1. —
PRINTS; PR011BS; INTEGRINA.
PRINTS; PR00193; VWPADOMAIN.
SWART; SW00191; Int_alpha; 4.
SWART; SW00327; VWA; 1.
PR0SITE; PS00342; INTEGRIN_ALPHA; 1.
PR0SITE; PS00342; VWFA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro; IPR000413; Integrin_alpha InterPro; IPR002035; VWF_A. Pfam; PF01839; FG-GAP; 5. Pfam; PF00357; Integrin_A; 1.
                                                                                                                                                                                                                                                          01-JAN-1998 (TrEMBLrel. 05, 01-JAN-1998 (TrEMBLrel. 05, 01-MAR-2003 (TrEMBLrel. 23,
                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                       1123 KDWMSE 1128
                                                                                                                                                                                         1147 KQLNLE 1152
                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                    ALPHAl integrin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Integrin.
SEQUENCE
                                                                           1001
                                                                                                               1040
                                                                                                                                                                                                                                       042094
                                                                                                                                                                                                                                                                                                                           Gallus
                                                                                                                                                                                                                     RESULT 15
042094
                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                           g
                                                                                                                                                 셤
                                                                                                                                                                                      a
                                                                     유
                                                                                       8
                                                                                                                                 ઠે
                                                                                                                                                                   ઠે
                                  6 B
                   ઠે
                                                                                    37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  899
                                                                                                                                                                                                                                                                                                                                                                                                               510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          837
                                                                                                                                            127
                                                                                                                                                               158
                                                                                                                                                                                                   218
                                                                                                                                                                                                                                                                                                                                                                                                                                  573
                                                                                                                                                                                                                                                                                                                                                                                                                                                    564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ---MAFKDKMDVELCFKVDSSAVPSEPGLRGMSLNFTVDVDV--------TKQ 727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                   275
                                                                                                                                                                                                                                                                     RSEKSRQELNTVASKPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMS 335
                                                                                                                                                                                                                                                                                                             390
                                                                                                                                                                                                                                                                                                                                                      454
                                                                                                                                                                                                                                                                                                                                                                          391 AAAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDV 450
                                                                                                                                                                                                                                                                                                                                                                                            514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        624
                                                                                                                         98
                                                                                                       94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALT
                                                                                                                                                                                                                                                                                                                                                                                                                          ----GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----TQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780 GGPREFNVTVTVRNDGEDSYRTOVTFFFPLDLSYRKVSTLONQRSQRSWRLACESASSTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOYFGOSLSGGODLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOVVKGKEAGEVRVCLHVØKS---TRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LVGTPLSAFGNLRPVLAEDAQRLFTALF - - PFEKNCGNDNICQDDLSITFSFMSLDCLVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840 VSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTE
                                                                                                                                                        99 LVRNHNGVLVCIQVQSRKPRSLNSELTGACSLLTPNLDLQAQAYFSDLEGVLDLGASVNS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ------ATSIIPDEIGCOPVEHILMPKGRYQGVT
                                                                                                                                                                                            STVMEQL---KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGL
                                                                                                                                                                                                                                                            RKVVRELFNI TNGARKNAFKILFLLTDGEKFGDPLGYEDVI PELDREGVIRYVIGVGDAF
                                                                                                                                                                                                                                                                                                                                     QEGFSAAITSNGP-LLSTVGSYDWAGGVFLY-TSKEKSTFINMTRVDSDMNDA---YLGY
                                                                                                                                                                                                                                                                                                                                               SVAALHKAHGVSYVAGAPRHKLRGAVFELQKEDEETFMRRIEGEQMGSYFGSVLCPVDI
                                                                                                                                                                                  ---CPQED----SDIAFLIDGSGSIIPHDFRRMKEWV
                                                                                    Gaps
                                                                                    244;
                                                                   Length 1167;
                                                                                                                                            95 ------QT¢SENTYVKGLCFLFGSNLRQOPQKFPEALRG
                                                                                                       47 LYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVH-
                                                                                    Indels
                                                1167 AA; 128593 MW; E3FED7E18B5CBBEC
                                                                 Query Match
18.8%; Score 1109; DB 11;
Best Local Similarity 27.5%; Pred. No. 2.5e-73;
Matches 332; Conservative 206; Mismatches 424;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ::
 SMART; SM00191; Int_alpha; 4.
SMART; SM00327; VWA; 1.
PROSITE; PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PS50234; VMRA; 1.
NON TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                    511 VLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              =
                                                                                                                                                                                                                                         219
                                                                                                                                                                                                                                                            216
                                                                                                                                                                                                                                                                                                                    339
                                                                                                                                                                                                                                                                                                                                       336
                                                                                                                                                                                                                                                                                                                                                        396
                                                                                                                                                                                                                                                                                                                                                                                             455
                                                                                                                                                                                                                                                                                                                                                                                                               451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         722
                                                SEQUENCE
                                                                                                                                                                                                                                                                                                 276
                                                                                                                                                                                  128
                                                                                                                                                                                                                        158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
   K K K K L S
                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                             6 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                        ò
                                                                                                                         임
                                                                                                                                            ò
                                                                                                                                                           g
                                                                                                                                                                            õ
                                                                                                                                                                                                유
                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                    ે
```

1039 46; 1000 1018 959 57 78 947 σį 2 NLDTENAMIFQENARG-FGOSVVQL---QGSRVVVGAPQEIVAANQRGSLYQCDYSTGSC 960 VRLNQTVIWDRPQVTFSENLSST-CHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCD Gallus gallus (Chicken). Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae; FQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVP 1019 IPFFGIQEEFNATL-----KGNLSFDWYIKTSHNHLLI--VSTAEIL----FNDSVFTL Gaps TISSUE=Gizzard;
MEDLINE=97476270; PubMed=9334246;
Obata H., Hayashi K., Nishida W., Momiyama T., Uchida A., Ochi T., Sobue K.; amuscle cell phenotype-dependent transcriptional regulation the alphal integrin gene.";
J. Biol. Chem. 272:26643-26651(1997).
J. Biol. Chem. 272:26643-26651(1997).
EMBL; AB000470; BAA23160.1;
HSSP; P17301; 1AOX. Query Match
17.7%; Score 1041; DB 13; Length 1171;
Best Local Similarity 28.0%; Pred. No. 3e-68;
Matches 340; Conservative 213; Mismatches 511; Indels 152; 1171 AA; 130228 MW; BS05A4D65F09736E CRC64; Created) Last sequence update) Last annotation update) PRT; 1171 AA

ò	, 108 FLFGSNLRQQ	FLFGSNLRQQPQKFPEALRG¢PQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKS 167	
Ορ	 138 SNVSSTFETV	SNVSSTFETVKAVAP-SVQEÇ-KTQLDIVIVLDGSNSIYPWESVTAFLNSLLRN 189	
ò	168KŢLF	KTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLG-RTHTATGLRKVVR 220	
DÞ	190 MDIGPOOTOV		
ò	221 ELFNITNGAR	ELFNITNGARKNAFKILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAF 275	
QO	250 EAFTEAHGAR	EAFTEAHGARRGVQKVMVIVTDGESH-DNYRLQEVIDKCEDENIQRFAIAILGSYSRGNL 308	
ò	276 RSEKSROELN	RSEKSRQELNTVASKPFRDHVFQINNFBALKTIQNQLREKIFAIEGTOTGSSSSFEHEMS 335	
Dp	309 STEKFVEEIK	STEKFVEEIKSIASKPTEKHFRNVSDELALVTIVEALGERIFALEATTDQQAASFEMEMS 368	
ò	336 QEGFSAAITS	DEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDWNDAYLGY 390	
qq	369 QAGFSAHYSQ	QAĞFSAHYSQDWVMLGAVĞAYDWNĞTVVMVKDSDISIPSNDTFRDRHSEKIEPLAAYLĞY 428	
ò	391 AAAIILRNRV	AAAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDV 450	
QQ	429 TVNSALTPGG	TVNSALTPGGVLYIAĞQPRYNHTGQVIIYKMEGREVKVLQRLKĞEĞIĞSYFĞGVITTIDI 488	
٥٨	451 DSNGSTDLVL	DSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGE 497	
QQ	489 NRDSFTDLLL	NRDSFTDLLLVGAPTYMGTEKEEQGKVYVYALNKTKFEYQMSLEPIKQTCCSPLKHDTCK 548	
0y	498 QGQPWG-R	QQQPWG-RFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQ 554	
QQ	549 VLKNEPCGAR	VLKNEPCGARFGTAIAAVKDLNLDGYNDIVIGSPLEDDHRGAVYIYHG-HGNTISKKYTQ 607	•
ò	555 RIAGSKLSPR	KIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQCHVLLLRSQPVLRVKAIMEFNPR 614	
qq	608 RIASGGDGEK		
ò	615 EVARNVFECN	EVARNVFECNDOVVKGKEAGEVRVCLH - VQKSTRDRLREGQIQSVVTYDLALDSGRPHS 672	
QQ	NOOOINIS 899	SINIQQONCQINKRKTICINATICFKTRLKSKEDIFESSLQYWITLDAQRQIS 720	
ò	673 RAVFNETKNS	RAVENETKNSTRROTOVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLVGTPL 727	
QQ	721 RSLFTETH	-FODSVK-V	
ò	7,28 SAFGNLRPVL	SAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGGP 782	
QQ	773 SGPVL	SGPVLDSNLPNSISEYIPFIKDCGAKNKCISDLALNVKASIAGDSSSPFIVKSRN 827	
ò	783 REFNUTUTUR	REFNUTUTURNDGEDSYRTÖVTFFFPLDLSYRKUSTLÖNQRSQRSWRLACESASSTEVSG 842	
QQ	828 DRFTIQLSIK	DRFIIQLSIKNKKDSAYNTRALVQYSPNIIFAGIEDIQKDSCESN 872	
δλ	843 ALKSTSCSIN	ALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKT 898	
QQ	873HNITCKVG	HNITCKVGYPFLKPEEEISFKISFQFNASYLLEN-ATVDVYATSDSEEPPETLRDNRG 929	
ò	899 EFQLELPVKYAVYMVVTS-	AVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRS 949	
Db	930QVTIPVKY	:          :	
ò	950 LP-ISLVFLV	LP-ISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRK 1001	
qq	988 MPNLTLQILY	ITTLSHSQ	
ò	1002 APVVNC	APVINCSIAVCORIOCDIPFEGIOBEFNATLKGNLSFDWYIKTSHNHLLIVST 1054	
дg	1045 EPTKDTIMEC	EPTKDTIMECDTFSCASINCALAPSDI-SQVNVSLRVWKPTIIKASIHSLTLVVK 1098	
ò	1055 AEILFNDSVF	AEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLALITAAL 1112	
qq	1099 ALLRSENSSL	ALLRSENŠSLILRNDHQKLETMIKISKEPPPGSVPLWVIPLSIFAGLLILALLIFAL 1155	

Oy 1113 YKLGPPKROYKDMMSE 1128 | | | | | | | | | : | WRAGFFKRPLKKWMEK 1171 Search completed: November 25, 2003, 14:20:31 Job time : 38.1068 secs

beta-2 integ beta 2 integ alpha-d. Ho

differenti

Protein Human be

Human beta 2, integ Human alpha-d. Ho Human Beta-integri Human alphad dclon Human alphad dclon Human beta 2 integr Human beta 2 integr Human alphad prote Human alphad prote Human alphad prote Human alphad prote Human alphad drote Rat alpha d prote Rat alpha d prote Rat alpha d protei Rat alpha d protei Rat alpha d protei Rat alpha d protei Rat alpha d protei Rat alpha d protei Rat Beta2 integrin Rat Beta2 integrin Rat Beta2 integrin Rat Beta2 integrin Rat Beta2 integrin Rat Beta2 integrin Rat Beta2 integrin Rat Beta2 integrin Rat Beta2 integrin Rat Beta2 integrin Rat Beta2 integrin Mouse beta 2 integrin Mouse beta 1 integrin Mouse alpha d prote Mouse alpha d prote Mouse alpha d prote Mouse alpha d prote

OM protein

Run on:

Sequence:

Searched:

Database

26459789

Result ŏ.

```
Beta-integrin alpha-d subunit; human; modulator; treatment; psoriasis; type-I diabetes; atherosclerosis; multiple sclerosis; asthma; lung inflammation; acute respiratory distress syndrome; CD11b subunit; rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human Beta-integrin CD11b subunit protein
                                                                                                                                                                                                                                                                                                                                                                                                           ALIGNMENTS
ABG61470
ABU07406
AAR78166
AAW23049
                                                                         AAW73342
AAB07359
AAB07359
AAW23064
AAW72877
AAW73343
AAB07376
AAR7349
AAR73169
AAR73169
AAR73169
AAR730004
AAW72824
AAW6004
                                                                                                                                                                                                                                                          AAW23061
AAW72836
AAW65103
AAW60003
                                                                                                                                                                                                                                                                                                    AAW73347
AAB07373
ABG61482
AAR78168
AAW23059
                                                                                                                                                                                                                                                                                                                                                       AAW72834
AAW65101
AAW60001
                                                     AAW65089
AAW57491
                                                                                                                                                                                                                                                  AAW73345
                                            AAW72825
                                                                                                                                                                                                                                      AAW65104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAW65090 standard; Protein; 1153 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Van DER VIEREN M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        95US-0485618.
93US-0173497.
94US-0286889.
94US-0362652.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       95US-0485618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
  CORP.
   07-JUN-1995;
23-DEC-1993;
05-AUG-1994;
21-DEC-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SODI (-SODI)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gallatin WM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US5728533-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-MAR-1998
                                                                                                        333885.5
333885.5
333885.5
332265.5
332265.5
332265.5
332266.5
3322266.5
3322266.5
3322266.5
3322266.5
3322266.5
3322266.5
3322266.5
3322266.5
3322266.5
3322266.5
3322266.5
3322266.5
3322266.5
3322266.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
332226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
32226.5
3226.5
3226.5
3226.5
3226.5
3226.5
3226.5
3226.5
3226.5
3226.5
3226.5
3226
 34434
34434
34631
3401
3401
3401
3401
3401
                                                                                                                                                                                                                                                           3212
                                                                                                                                                                                                                                                                                                                                  3208
3203.5
3203.5
3203.5
3203.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAW65090;
  Human Beta-integri
Human CD11b protei
Human Betaz integr
Human integrin 1 a
Integrin Mac-1 alp
Alpha subunit of M
p150.95 alpha subu
Human Beta-integri
Human CD11c protei
                                                                                   (without alignments)
4971.979 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            results predicted by chance to have a 1 to the score of the result being printed, of the total score distribution.
                                                                                                                                                                                                                                                                                                           Search time 36.2978 Seconds
                                                                                                                             5884
1 FNLDTENAMTFQENARĢFGQ......FKRQYKDWMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Description
                       - 2003 Compugen Ltd
            GenCore version 5.1.6
(c) 1993 - 2003 Compu
                                                                                                                                                                                                               Total number of hits satisfying chosen parameters:
                                                                                                                                                                                             1107863 segs, 158726573 residues
                                                                           November 25, 2003, 14:08:29
                                                                                                                                                                                                                                                                                            Summaries
                                                      - protein search, using |sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAW65090
AAB07360
ABG61469
AAU80252
AAC14428
AAR04136
AAR07120
AAR07120
AAR07120
                                                                                                                                                                       0.5
                                                                                                                                                                     Gapop 10.0 , Gapext
                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        score greater than or equal and is derived by analysis o
                                                                                                                                                                                                                                     Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             is the number of
                                                                                                                   US-09-902-481B-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1153
1153
1153
1153
1153
1163
1163
                       Copyright
                                                                                                                                                             BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1112
1123::1
114::1
116::1
116::1
116::1
116::1
116::1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No.
                                                                                                                   Title:
Perfect score:
                                                                                                                                                             Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score
```

Rat beta 2 integri Rat alpha-d #2. R Rat beta-integrin

polype

Rat alpha d

796

736

840

856

900 916 960 916

```
Human; macrophage infiltration inhibition; alpha_d integrin;
leukocyte integrin; Leu-CAM; leukointegrin; immune response;
inflammation; leukocyte adhesion deficiency; LAD; Type I diabetes;
atherosclerosis; multiple sclerosis; asthma; psoriasis; beta2 integrin;
lung inflammation; acute respiratory distress syndrome; Crohn's disease;
rheumatoid arthritis; central nervous system injury; CD11b.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Integrins are a class of membrane-associated molecules that participate
SLYCTPLSAFGNLRPVLAEDAORLFTALFPFEKNCGNDNICODDLSITFSFMSLDCLVVG
                                                                                                                    SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                        QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                            QLELPVKYAVYWVVTSHGVSTKYLNFTASENTSRVWQHQYQVSNLGQRSLPISLVPLVPV
                                                                                                                                                                                                                                                                                                                          RLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                                                                                                                                                                                             RINQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                                                                                                                                                                                                                                             FFGIQEEFNATLKGNLSFDWY1KTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
                                                                                                                                                                                                                                                                                                                                                                                                                1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTILPGGGAFVRSQTET
                                                    SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDN1CQDDLS1TFSFMSLDCLVVG
                                                                                                                                                                                         SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   to inhibit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  monoclonal antibodies to inflammation at central
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Use of novel anti-alpha integrin d macrophage infiltration and reduce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAB07360 standard; Protein; 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human CD11b protein sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0193043
99US-0350259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US27139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 5; Fig 1; 270pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Van Der
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2000-387751/33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   system injury sites
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200029446-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sallatin MW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (ICOS-) ICOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1097
                                                                                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAB07360;
                   677
                                                    721
                                                                                    737
                                                                                                                      781
                                                                                                                                                     197
                                                                                                                                                                                         841
                                                                                                                                                                                                                        857
                                                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                        917
                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                         977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                  셤
                                                                                                                                              8
                                                                                                                                                                                                                   용
                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                   ઠે
                                                                                                                    ઠે
                                                                                                                                                                                       8
                                                                                                                                                                                                                                                     ठ
                                                                                                                                  This sequence represents a human beta-integrin CD11b subunit which is used to describe a method for identifying compounds that modulate the interaction of the beta-integrin alpha-d subunit with a binding partner of alpha-d which involves contacting an alpha-d polypeptide with an alpha-d binding partner, one of which is immobilised and the other of which is labelled, in the presence of a test compound, and determining it the compound affects binding between the alpha-d polypeptide and alpha-d binding partner, where the alpha-d polypeptide is alpha-d or its fragment comprising the cytoplasmic, transmembrane or extracellular domain of alpha-d binding could be used to treat diseases such as type-I diabetes, abha-d binding could be used to treat diseases such as type-I diabetes, atherosclerosis, multiple sclerosis, asthma, psoriasis, lung inflammation, acute respiratory distress
                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQE1VAANQRGSLYQCDYSTGSCEPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RIHFTFKEFONNPNPRSLVKPITOLLGRTHTATGIRKVVRELFNITNGARKNAPKILVVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TDGEKFGDPLGYEDVI PEUDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSROELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NFEALKTIQNQLREKIFA FEGTQTGSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRGQRARWQCDAVLYGEQ¢QPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HGTSGSGISPSHSQRIAG$KLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RLQVPVEAVNMSLGLSLAA†TSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                Length 1153;
                                   of integrin binding - using polypeptide, useful for, e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                              DB 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                              .;
3
                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                            Score 5852;
Pred. No. 0;
                                                                                                        English
                                     oţ
                                                                                                                                                                                                                                                                                                                                           syndrome and rheumatoid arthritis.
                               Screening assay for modulators o immobilised or labelled alpha-d
                                                                                                                                                                                                                                                                                                                                                                                                            99.5%;
llarity 99.2%;
Conservative
                                                                                                    5; Fig 1A-D; 106pp;
                                                                    treating type-I diabetes
 WPI; 1,998-206565/18
                                                                                                                                                                                                                                                                                                                                                                              1153 AA
                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
Matches 1128; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11
                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                      Example
```

a ò

g ò

õ

g

õ ያ ያ 8 8

ò g 8 6 6 B 6

a ò qq

ò

1080 1096

```
in cellular adhesion. Integring are made up of an alpha subunit and a beta subunit. One class of human integrins are restricted to expression in white blood cells and have a common beta2 subunit: the leukocyte circum, the beta contegrins in white blood cells and have a common beta2 integrins. Beta2 integrins have an important role in immune and inflammatory responses. The present protein sequence is the human integrin alpha subunit CD1b. This sequence was used in an alignment to identify a novel beta2 integrin approximately 60% identity to the protein sequence of alpha. The present approximately 60% identity to the protein sequence of alpha. The caperant alpha d function e.g. Type I diabetes, atherosclerosis, multiple sclerosis, asthma, psortains, lung inflammation, acute respiratory distress syndrome, rheumatoid arthritis and leukocyte and actioning the inhibition of macrophage infiltration at the site of a central nervous system injury. The monoclonal antibodies can also be used to detect and diagnose Crohn's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RLQVPVEAVMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FNLDTENAMTFQENARGFGQ$VVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                   $core 5852; DB 21; Length 1153;
pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                            7; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                     99.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 99.2
Matches 1128, Conservative
                                                                                                                                                                                                                                                                                                                                                                               1153 AA;
                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
```

> ò 유 ò g ò

360 420 480 540 900 99 376 436 496 556 676 720 NFEALKTIONOLREKI FAIEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSP1VLRLNF PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ PVLRVKAIMEFNPREVARNYFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL PRGORARWOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF 377 301 317 437 497 541 557 601 617 661 361 421 481 8 8 g ò ò ò g ò g ò g ઠે 셤 ò

1080 RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020 916 960 900 796 840 856 Beta2 integrin, alphaD subunit; CD11c subunit; CD11b subunit; labb; leukocyte adhesion deficiency; inflammatory response; diabetes; multiple sclerosis; arthritis; graft atherosclerosis; neuroprotective; inflammatory bowel disease; Crohn's disease; ulcerative colitis; immune complex alveolitis; leukaemia; ICAM-R; VCAM-1; anti-inflammatory; infracellular cell adhesion molecule; vascular cell adhesion molecule; vascular cell adhesion molecule; autonomic dysfunction; sensory dysfunction; spinal cord injury. KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF **QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV** Human Beta2 integrin alphaCD11b subunit. Ş ABG61469 standard; Protein; 1153 15-OCT-2001; 2001WO-US32059. 13-OCT-2000; 2000US-0688307 (first entry) WO200230980-A2 Homo sapiens 27-AUG-2002 18-APR-2002 1021 1097 737 781 797 857 901 917 961 1037 1081 ABG61469 RESULT ò 셤 ₹ 셤 ઠે 셤 ò ద ò ď 8 

Use of an anti-alpha-d monoclonal antibodies for promoting locomotor recovery, inhibiting locomotor damage, limiting locomotor impairment, or limiting autonomic and sensory dysfunction following spinal cord injury

Σ Vieren

Van Der

Gallatin WM,

(ICOS-) ICOS CORP

WPI; 2002-463260/49.

Example 5; Page 191-194; 270pp; English.

a The invention relates to promoting locomotor recovery, inhibiting locomotor damage, limiting locomotor impairment, or limiting autonomic and sensory dysfunction following spinal cord injury by administering s

SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEXNCGNDNICQDDLSITFSFMSLDCLVVG 780

```
anti-alpha d (Beta2 integrin alpha2 subunit) monoclonal antibody to a spinal cord injury victim. The method also involves the use of a ligand selected from ICAM-R or VCAM-1 (intracellular cell adhesion molecule, vascular cell adhesion molecule). The method is useful for promoting locomotor recovery, inhibiting locomotor damage, limiting comporting locomotor impairment, or limiting autonomic and sensory dysfunction comprises compression of the spinal cord injury. In particular, the spinal cord injury, comprises compression of the spinal cord. The antibodies are also useful for reducing inflammation at the site of a central nervous system injury. The specification also details the identification of Beta2 integrin alphab cDNAs and proteins, for use in raising the antibodies. Beta2 integrin are implicated in diseases such as LAD (leukocyte adhesion deficiency, inflammatory response, diabetes, multiple sclerosis, arthritis, graft atheroselersis, inflammatory bowel disease, crohn's disease, ulcerative collicis, immune complex alveolitis and leukaemia. The present sequence is a Beta2 integrin alpha protein
                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9/9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      736
                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                   76
                                                                                                                                                                                                                                                                                                                                                                                                                      FNLDTENAMTFQENARGFGÓSVVQLQGSRVVVGAPQEI VAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                     FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRWKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOGEKFGDPLGYEDVI PEADREGVIRYVIGVGDAFRSEKSRQELNTI ASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NFBALKTIONOLREKIFAIBGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HGTSGSGISPSHSQRIAG$KLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                       Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                       DB 23;
                                                                                                                                                                                                                                                                                                                                                                                        5;
                                                                                                                                                                                                                                                                                                                                                     Score 5852; DE
Pred. No. 0;
7; Mismatches
                                                                                                                                                                                                                                                                                                                                                99.5%;
Best Local Similarity 99.2%;
Matches 1128; Conservative 7
                                                                                                                                                                                                                                                                                                                       1153 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     557
                                                                                                                                                                                                                                                                                          sednences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                       17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                        Sequence
      85888888888888888888888888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

```
1020
                                                                                                                                                                                                  FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                       960
                                                                                                                                                             916
                                            840
                                                                                         900
                                                                                                                916
 780
                    196
                                                                 856
                                                                                                                                                                                                                                                                                                     1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               an
                                                                                                                                                                                     RINQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                                                                                              FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
            SLYGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                          GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                       SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                       QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                   SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                             CESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Modified integrin-I or integrin I-like domain polypeptide useful as a immunogen to produce antibodies specific to polypeptide, comprises a disulfide bond such that polypeptide is stabilized in a desired
                                                                                                                                                                                                                                                                                          KVEPPEVPNPLPLIVGSSVGGLLLLALITAALYKLGPFKRQYKDMMSEGGPPGAEPO
                                                                                                                                                                                                                                                                             KVEPFBVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                    inflammatory disease; autoimmune disorder; Crohn's disease; human immunodeficiency virus; HIV; myocardial infarction; Sjorgen's syndrome; rheumatoid arthritis.
                                             GPREFNVTVTVRNDGEDSYRTQVTFFFFLDLSYRKVSTLQN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Agg.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Page 109-112; 112pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                Human integrin 1 alpha-M subunit protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note≈ "Encoded by GGG
                                                                                                                                                                                                                                                                                                                                                              Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Key Location/Qualifiers
Misc-difference 499..500
                                                                                                                                                                                                                                                                                                                                                              AAU80252 standard; Protein; 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ΰ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-SEP-2000; 2000US-229700P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31-AUG-2001; 2001WO-US27227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (BLOO-) CENT BLOOD RES INC.
                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ΣÌ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Shimoaka
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2002-382964/41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB; ABK50046.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200218583-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŢĀ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 conformation
                                                                                                                                                                                                                                                                                                                                                                                                           15-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Springer
                                                                                                                                                                                                                                 1021
                                                                                                                                                                                                                                                       1037
                                                                                                                                                                                                                                                                              1081
                                                                                                                                                                                                                                                                                                     1097
 721
                     737
                                             781
                                                                  797
                                                                                                                857
                                                                                                                                       901
                                                                                                                                                              917
                                                                                                                                                                                     961
                                                                                                                                                                                                           716
                                                                                                                                                                                                                                                                                                                                                                                    AAU80252,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ношо
                                                                                                                                                                                                                                                                                                                                                 AAU80252
                                                                                                                                                                                                                                                                                                                                        RESULT
                                                                                                                                                                                                                                                                                                                                                               a
                                                              ద
                                                                                                                                                          셤
                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                  g
                  셤
                                           ઠે
                                                                                        Š
                                                                                                                                       δ
                                                                                                                                                                                  8
```

invention relates to a modified integrin-I or integrin I-like

This

domain polypeptide comprising at least one disulfide bond so that the domain is stabilised in a desired conformation. The polypeptide of the invention may have antinifammatory or immosuppessive activities. The polypeptides of the invention have an open conformation and are useful as immunogens to produce antibodies that selectively bind to integrin I-domain; and for identifying a modulator of integrin activity, or of interaction of an integrin and a cognate ligand. The polypeptide of the invention, or antibodies (preferably anti-LFA-1 antibody) is useful for treating or preventing an integrin mediated disorder which is an inflammatory or autoimmune disorder in a subject and for inhibiting the binding of an integrin to a cognate ligand such as Crohn's disease, nephritis; human immunodeficiency virus (HIV), myocardial infarction, Storgen's syndrome, rheumatoid arthritis, dermatitis.

A therapeutic composition comprising the opetide of the invention is useful for treating an integrin mediated disorder in a subject. The polypeptides and/or active or antigenic fragments are useful as reasents for diagnosis of integrin-mediated disorders. The present sequence represents the human integrin-mediated disorders. The present sequence represents the human integrin-mediated disorders. The present sequence represents the human integrin-mediated disorders. The present sequence the mutant polypeptides of the invention. 120 180 136 196 240 256 300 316 360 420 480 540 556 600 919 999 919 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF 720 736 9/ RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF NFEALKTIQNQLREKIFAI #GTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG RLOVPVEAVNMSLGLSLAATITSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK ONTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF PVLRVKAIMEFNPREVARNYFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT PVLRVKAIMEFNPREVARNYFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI Gaps ö Length 1153; Indele Score 5852; DB 23; Pred. No. 0; ; Mismatches 2; 99.5**%**; 99.2**%**; Best Local Similarity 99.2 Matches 1128; Conservative 1153 AA; Local Similarity 301 137 197 317 Sequence H 17 61 17 121 181 377 241 497 557 617 Query Match 361 437 481 541 601 661 421 \$ ò 셤 ò g ઠે g ò d ò g ò g ò g ò g ò a ò g ò g

RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020 1036 1096 PPGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080 960 780 796 840 856 900 916 976 open conformation; usupna subunit; variant integrin inserted domain protein; open conformation; integrin related inflammatory disorder; integrin related immunological disorder; rheumatoid arthriis; ischaemia; reperfusion; hypovolemic shock; infarction; cerebral shock; viral infection; cancer; gene therapy; vaccine; bloactive agent screening. KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137 SLYGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG GPREFNVIVIVRNDGEDSYRIQVIFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV 1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILENDSVFTLLPGQGAFVRSQTET GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF **QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV** for New integrin I domain protein having alteration in at least 2 noncontiguous regions and exits in an open conformation, useful for treating, preventing or suppressing inflammatory or immunological disorders (CALY ) CALIFORNIA INST OF TECHNOLOGY. (BLOO-) CENT BLOOD RES. Ş AAO14428 standard, protein, 1153 Example 1; Fig 1F; 90pp; English. Integrin Mac-1 alpha subunit. 09-JUL-2001; 2001WO-US21805. 07-JUL-2000; 2000US-216600P (first entry) WPI; 2002-148167/19. WO200204521-A2 03-MAY-2002 17-JAN-2002. Springer T; 1081 1097 AA014428; 721 737 781 841 857 901 917 961 977 1021 RESULT 5 요 ò 셤 ઠે 음 ઠે 임 ò 셤 ઠે 셤 ઠે 

The invention comprises structurally biased variant integrin inserted (I) domain proteins, wherein the alterations to the protein occur in at least

À.

```
ö
two noncontinuous regions. Specifically the the variant integrin I domain proteins are structurally biased to exist in the open conformation, thereby altering the binding ability of the protein. The invention also comprises nucleic acids encoding the variant integrin I domain proteins. The integrin I domain proteins and nucleic acids are useful for treating, preventing or suppressing integrin related inflammatory and immunological disorders (e.g. rheumatoid arthritis). The variant integrin I domain proteins and nucleic acids can also be used for treating: ischaemia/ reperfusion (e.g. hypovolemic shock); infarction; cerebral shock; viral infection; and cancer. The variant integrin I domain nucleic acids and proteins may be used in gene therapy, as vaccines and to screen for bioactive agents. The present amino acid sequence represents the Mac-1 alpha subunit of integrin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         136
                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                           196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           736
                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                   9,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GPREFNVTVTVRNDGEDSYRTQVTFFPPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HGTSGSGISPSHSQRIAG$KLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YDLALDSGRPHSRAVFNETKNSTRROTOVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                         FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                        FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                    RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                    RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                               FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                           FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   257 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NFEALKTIQNQLREKIFA TEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NFEALKTIONOLREKI PAIEGTOTGSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRGORARWOCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YDLALDSGRPHSRAVFNETKOSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                               Length 1153
                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                           5;
                                                                                                                                                                                                                                               DB 23;
                                                                                                                                                                                                                                             Query Match

99.5%; Score 5852; D

Best Local Similarity 99.2%; Pred. No. 0;

Matches 1128; Conservative 7; Mismatches
                                                                                                                                                                                                                  1153 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                               17
                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
   $$$$$$$$$$$$$$$$$$$$
                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 6 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 8 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ें
```

1020 RINGTVIMDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1036 1080 900 916 960 976 856 KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137 KVEPPEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1153 GPREFNVTVTVRNDGEDSYRTQVTFFFFLDLSYRKVSTLQNQRSQRSWRLACESASSTEV QLELPVKYAVYWVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVPLVPV RLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP PFGIQEEFNATLKGNLSFDWY1KTSHNHLL1VSTAEILFNDSVFTLLPGQGAFVRSQTET **QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVPLVPV** /\*label= putative N-glycosylation site 1022. 1024 /\*label= putative N-glycosylation site Bite subunit; Mac-1 alpha/beta heterodimer;
defence system; integrin gene superfamily %6..88
/\*label= putative N-glycosylation si
240..342
/\*label= putative N-glycosylation si
391..393
/\*label= putative N-glycosylation si
4693..695
/\*label= putative N-glycosylation si
693..695
/\*label= putative N-glycosylation si
697..699
/\*label= putative N-glycosylation si
692..804
/\*label= putative N-glycosylation si
802..804
/\*label= putative N-glycosylation si
901..903
/\*label= putative N-glycosylation si
911..914
/\*label= putative N-glycosylation si
911..914
/\*label= putative N-glycosylation si
912..914
/\*label= putative N-glycosylation si
912..914
/\*label= putative N-glycosylation si
947..949 Alpha subunit of Mac-1 leukocyte adhesion receptor N-glycosylation Ź Location/Qualifiers AAR04136 standard; protein; 1153 (updated)
(first entry) 979..981 /\*label= 994..996 Key Modified-Bite Modified-site Modified-site Modified-site Modified-site Modified-site Modified-site Modified-site Modified-site Modified-site Modified-site Modified-site Modified-site Modified-site Mac-1 alpha s non-specific Modified-site Modified-site 25-MAR-2003 07-SEP-1990 synthetic AAR04136; 917 716 1021 1081 1097 797 841 857 901 961 셤 셤 셤 8 셤 셤 ઠે ሯ ઠે ઠે

```
1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSQTET 1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                    960
                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                        496
                                                                                                                       009
                                                                                                                                               616
                                                                                                                                                                           99
                                                                                                                                                                                                    919
                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                           736
                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                               796
                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                    856
                                                                                                                                                                                                                                                                                                                                                                                                906
                                                                                                                                                                                                                                                                                                                                                                                                                        916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KVEPFEVPNPLLLIVGSSVGGLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
                                                                                                                                                                                                                               QNTGMMESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                      HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                             QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
               QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYBQTRGGQVSVCPL
                                                                   PRGORARWOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                       HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                           PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                          SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                   SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                              SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  p150,95 leucocyte adhesion receptor alpha-subunit; hairy cell leukaemia; rhinovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       p150.95 alpha subunit encoded by clone lambdax47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /label=glycosylation site 385..387
/label=glycosylation site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61..63
/label=glycosylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAR07120 standard; protein; 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (updated)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Key
Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-MAR-2003
05-FEB-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                    617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1097
                421
                                        437
                                                                   481
                                                                                             497
                                                                                                                       541
                                                                                                                                                 557
                                                                                                                                                                           601
                                                                                                                                                                                                                                199
                                                                                                                                                                                                                                                           677
                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                737
                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                    797
                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                         857
                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                윱
                                                                 ઠે
                                                                                      유
                                                                                                                   ઠે
                                                                                                                                            요
                                                                                                                                                                         ઠે
                                                                                                                                                                                                各
                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     96
                                                                                                                                                                                                                                                                                                                                                                                                                                   Mac-1 alpha subunit is involved in the response to inflammation, i.e. recognition of and migration to sites of inflammation. It also attaches to cellular substrates as part of this function making it useful in visualising endothelial tissue.

Mac-1 is a member of the Integrin Gene superfamily.

(Updated on 25-MAR-2003 to correct PR field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NFEALKTIONOLREKIFAIEGTOTGSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RIHFTFKEFQNNDNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NFEALKTIQNQLREKIFA1EGTQTGSSSSFEHEMSQEGFSAA1TSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GVFLYTSKEKSTFINMTRV DSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FNLDTENAMTFQENARGFGGSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                     treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1153;
                                                                                                                                                                                                                                                                                                                                                                    New pure Mac-1 alpha sub-unit and corresp. DNA useful for inflammation and viral infections, and in diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
1045..1047
/*label= putative N-glycosylation site 1051..1053
/*label= putative N-glycosylation site 1076..1078
/*label= putative N-glycosylation site /*label= putative N-glycosylation site
                                                                                                                        region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 5842; DB 11;
Pred. No. 0;
7; Mismatches 3;
                                                                               1..16
/*label= signal peptide
1106..1134
/*label= putative transmembrane
                                                                                                                                                                                                                                                                    (DAND ) DANA FARBER CANCER INST INC.
                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page ?; ?pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99.3%;
                                                                                                                                                                                                     89EP-0115159
                                                                                                                                                                                                                             88US-0235353
89US-0321239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 99.1
Matches 1127; Conservative
                                                                                                                                                                                                                                                                                                  Corbi A;
                                                                                                                                                                                                                                                                                                                           WPI; 1990-125938/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1153 AA;
                                                                                                                                                                                                                                                                                                                                         N-PSDB; AAQ04043
 Modified-site
                          Modified-site
                                                     Modified-site
                                                                                                                                                                                                     17-AUG-1989;
                                                                                                                                                                                                                               23-AUG-1988;
09-MAR-1989;
                                                                                                                                                                                                                                                                                                   Springer TA,
                                                                                                                                                                           25-APR-1990
                                                                                                                                                EP364690-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                            region
                                                                                 region
```

g &

8 6

6 6 6 6 6 6 6 6

240 257 360 377 420 437 480 497 540 556 900 919 99 676

Tue

```
1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGODLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781 GPREFNVTVTVRNDGEDSYRTQVTFFPPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SNLELNAEVAVWNDGEDSYGTTITFSHPAGLSYRYVAEGQKQGQLRSLHLTCDSA--PVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QLELPVKYAVYMVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TDGEKFGDPLGYEDVI PELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                            NFEALKTIQNOLREKIFALEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                    GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                   QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                        YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
 RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                   PRGWR-RWWCDAVLYGEQGHPWGRFGAALTVLGDVNGDKLTDVV1GAPGEBENRGAVYLP
                                                                                                                                                                                                                                                                                                                                                                                              PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ż
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Protein; 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                            617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAW65091;
                             198
                                                                                                              301
                                                                                                                                                                    361
                                                                                                                                                                                                378
                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                        438
                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                             498
                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                     557
                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW65091
 181
                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW65091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         UXXXEX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                              셤
                                                                                                                                   셤
                                                                                                                                                                    ઠે
                                                                                                                                                                                           셤
                                                                                                                                                                                                                       ે
                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                  ઠે
                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      138 LPVSRQECPRQEQDIVFLIDGSGSISSRNFATMMNFVRAVISQFQRPSTQFSLMQFSNKF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           total RNA extracted from photbol myristate acetate stimulated HL-60 myelomonocytic cells. The library was screened with oligonucleotide probes based on tryptic peptide fragments of p16.95. The sequence can be attached to appropriate control elements and expressed in prokaryotic and eukaryotic cells. The protein can be used to treat or prevent rhinoviral infection because it interacts with ICAM-1 and inhibits cell-virus attachment. It can also be used as an anti-inflammatory agent.

See also AAG06063-4, AAG06068, AAR07121-8 and AAR07152-6. (Updated on 25-MAR-2003 to correct PR field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Treatment of viral esp. rhino-viral infection - by admin. of alpha sub-unit of p150.95 cell surface adhesion receptor, opt. together with a beta chain of CD-18 family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Clone lambda X47 was isolated from a cDNA library constructed from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               / Match 58.6%; Score 3450; DB 11; Local Similarity 60.7%; Pred. No. 2.8e-279; Les 685; Conservative 142; Mismatches 296;
392..394
/label=glycosylation site
(97.699
/label=glycosylation site
735..737
/label=glycosylation site
899..901
/label=glycosylation site
904..906
                                                                                                                                           peptide
                                                                                                                                                                                   label=glycosylation
                                                                                                                                                                                                               label=transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                (DAND ) DANA FARBER CANCER INST INC.
                                                                                                                                                                                                                                                           20..44
/label=N-terminus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure, Fig 3; 59pp; English.
                                                                                                                                                                                                                               ..19
label=signal
                                                                                                                                                                                                                                                                                                                                                                                    89US-0305458
                                                                                                                                                                                                                                                                                                                                                           90WO-US01257
                                                                                                                                                                                                                                                                                                                                                                                                                                              Springer TA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1990-304985/40.
N-PSDB; AAQ06068.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1163 AA;
    Modified-site
                             Modified-site
                                                         Modified-site
                                                                                     Modified-site
                                                                                                               Modified-site
                                                                                                                                           Modified-site
                                                                                                                                                                      Modified-site
                                                                                                                                                                                                                                                                                                                                                           09-MAR-1990;
                                                                                                                                                                                                                                                                                                                                                                                      02-FEB-1989;
                                                                                                                                                                                                                                                                                                     MO9010646-A
                                                                                                                                                                                                                                                                                                                              20-SEP-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                              Corbi AA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                  Domain
                                                                                                                                                                                                                               Region
                                                                                                                                                                                                                                                           Region
```

1019

840

900 914 959 974

854

720

736

780 196 1034

1094

g

ò g

ઠે 요 ò

437

377

480

497

540

556

900 616 999 720

736

676

780 196 840

```
Human; macrophage infiltration inhibition; alpha_d integrin; leukocyte integrin; Leu-CAM; leukointegrin; immune response; inflammation; leukocyte adheaion deficiency; i.AD; Type I diabetes; atherosclerosis; multiple sclerosis; athma; bsoriasis; beta2 integrin; lung inflammation; acute respiratory distress syndrome; Crohn's disease; rheumatoid arthritis; central nervous system injury; CD11c.
GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                       HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                           661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                       GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                             498 PRGWR-RWWCDAVLYGEQGHPWGRFGAALTVLGDVNGDKLTDVVIGAPGEEENRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                         SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                   QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                              PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA1GAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                 PVLRVKA I MEFNPREVARNV FECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAB07361 standard; Protein; 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human CD11c protein sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           915 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1095
                                                                                                                                                                      438
                                                                                                                                                                                                                                                                                                                                                                   601
                                                           361
                                                                                                                                   421
                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAB07361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                         ሯ
                                                                                           셤
                                                                                                                                 ò
                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This sequence represents a human beta-integrin CD11c subunit which is used to describe a method for identifying compounds that modulate the interaction of the beta-integrin alpha-d subunit with a binding partner of alpha-d which involves contacting an alpha-d polypeptide with an alpha-d binding partner, one of which is immobilised and the other of which is labelled, in the presence of a test compound, and determining it the compound affects binding between the alpha-d polypeptide and alpha-d binding partner, where the alpha-d polypeptide is alpha-d or its fragment comprising the cytoplasmic, transmembrane or extracellular domain of alpha-d computed that modulate alpha-d binding could be used to treat diseases such as type-I diabetes, atherosclerosis, multiple sclerosis, syndrome and rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NFEALKTIQNQLREKIFAIBGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           79
                                   Beta-integrin alpha-d subunit; human; modulator; treatment; psoriasis; type-I diabetes; atherosclerosis; multiple sclerosis; asthma; lung inflammation; acute respiratory distress syndrome; CD11c subunit; rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FNLDTEELTAFRVDSAGFGDSVVQYANSWVVVGAPQKIIAANQIGGLYQCGYSTGACEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GLOVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  138 LPVSRQECPRQEQDIVFLIBGSGSISSRNFATWMNFVRAVISQFQRPSTQFSLMQFSNKF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ch 58.4%; Score 3436; DB 19; Length 1163; Il Similarity 60.6%; Pred. No. 4.1e-278; 684; Conservative 148; Mismatches 291; Indels 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Screening assay for modulators of integrin binding - using immobilised or labelled alpha-d polypeptide, useful for, e. treating type-I diabetes
subunit protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 5; Fig 1A-D; 106pp; English.
                                                                                                                                                                                                                                                                                    95US-0485618.
93US-0173497.
94US-0286889.
94US-0362652.
                                                                                                                                                                                                                                                                                                                                                                                                                         Van DER VIEREN
                                                                                                                                                                                                                                                  95US-0485618
 Beta-integrin CD11c
                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1998-206565/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1163 AA;
                                                                                                                                                                                                                                                                                                                                                                                     CORP.
                                                                                                                                                                                                                                                                                                                                                                                   (ICOS-) ICOS
                                                                                                                                                                                                                                                                                                                                                                                                                     Gallatin WM,
                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                  07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                             21-DEC-1994;
                                                                                                                                                                      US5728533-A
                                                                                                                                                                                                                                                                                    07-JUN-1995
                                                                                                                                                                                                                                                                                                      23-DEC-1993
05-AUG-1994
                                                                                                                                                                                                            17-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loca
```

셤 ઠ

g

ò

g

ò

셤

ð 유

ठे

1019 1034 1079 1094

900 914 959

```
Beta2 integrin, alphaD subunit; CD11c subunit; CD11b subunit; LAD; leukocyte adhesion deficiency; inflammatory response; diabetes; multiple sclerosis; arrhritis; graft atherosclerosis; neuroprotective; inflammatory bowel disease; Crohn's disease; ulcerative colitis; immune complex alveolitis; leukaemia; ICAM-R; VCAM-1; anti-inflammatory; infracellular cell adhesion molecule; vascular cell adhesion molecule; automotor recovery; locomotor damage; locomotor impairment; autonomic dysfunction; sensory dysfunction; spinal cord injury.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SNLELNAEVAVANDGEDSYGTTITFSHPAGLSYRYVAEGQKQGQLRSLHLTC--CSAPVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QLELPVKYAVYMVVTSHGVSTKYLNFTAS - ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                          HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                            SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                              PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                   PRGWR-RWWCDAVLYGEQGHPWGRFGAALTVLGDVNGDKLTDVVIGAPGEEENKGAVYLF
                                                                                                                                                                                                                                                                            PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                     661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                       QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human Beta2 integrin alphaCD11c subunit.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABG61470 standard; Protein; 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABG61470;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1095
                                                           421
                                                                                              438
                                                                                                                                  181
                                                                                                                                                                     498
                                                                                                                                                                                                         541
                                                                                                                                                                                                                                              557
                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                   617
                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                            셤
                                                                                                                                                             윱
                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                요 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                           ઠે
                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                in cellular adheaion. Integrins are made up of an alpha subunit and a beta subunit. One class of human integrins are restricted to expression in white blood cells and have a common beta2 subunit: the leukocyte sintegrins in the common seta2 integrins. Leu-CAMS, leukointegrins or beta2 integrins. Beta2 integrins have an important role in immune and inflammatory responses. The present protein sequence is the human integrin alpha subunit CDlic. This alpha alignment to identify a novel beta2 integrin alpha subunit: alpha d (AAA60014 and AAB07155). The present sequence has aprained and protein may be useful in therapy for diseases linked to aberrant alpha d function e.g. Type I diabetes, atheroselerosis, multiple sclerosis, asthma, psoriasis, lung inflammation, acute respiratory distress syndrome, rheumatoid architis and leukocyte adhesion deficiency (LAD). In addition, anti-alpha d monoclonal antibodies may be used in the inhibition of macrophage inflitration at the site of a central nervous system injury. The monoclonal antibodies can also be used to detect and diagnose Crohn's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHOTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GVFLYTSKEKSTFINMTRÅDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    79
                                                                                                                                                                                                                                                                                                                                                                                                                                  participate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FNLDTEELTAFRVDSAGFGDSVVQYANSWVVGAPQKIIAANQIGGLYQCGYSTGACEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  80 GLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHECGRNMYLTGLCFLLGPT--QLTQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RIHFTFKEFONNPNPRSLİKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHETEBERRISNPLSLÅASVHQLQGFTYTATAIQNVVHRLFHASYGARRDAIXILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                       Use of novel anti-alpha integrin d monoclonal antibodies to inhibit macrophage infiltration and reduce inflammation at central nervous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                      membrane-associated molecules that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            58.4%; Score 3436; DB 21; 60.6%; Pred. No. 4.1e-278;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity bulbs; rreuling 1887 Mismatches 291; Marches 684; Conservative 148; Mismatches 291;
                                                                                                                                                                                                                                                                                                                                                                                                 Example 5; Fig 1; 270pp; English.
                                                                                                                                                                                                                                                 Van Der Vieren
                                                                                                                                                       98US-0193043.
99US-0350259.
                                                                                                                     99WO-US27139
                                                                                                                                                                                                                                                                                                                                                                                                                                      a class of
                                                                                                                                                                                                                                                                                    2000-387751/33.
                                                                                                                                                                                                                                                                                                                                                                 system injury sites
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1163 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                            WO200029446-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                        Integrins are
                                                                                                                                                                                                             (ICOS-) ICOS
         sapiens
                                                                                                                                                                        08-JUL-1999;
                                                                                                                                                                                                                                                 Gallatin MW,
                                                                                                                     16-NOV-1999;
                                                                                                                                                         16-NOV-1998;
                                                                                25-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
           Homo
```

d

ઠે a ò g ò 셤 ò 셤

ò

셤

ઠે

1079

1019 1034

959 974

900 914

720 736 780

840

854

480 497 540 556 909 616 999 919 720 736

```
GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                          378 GAFLYPPNMSPIFINMSQENVDMRDSYLGYSTELALWKGVQSLVLGAPRYQHIGKAVIFI
                                                                                                 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781 GPREFNVTVTNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SQGTWSTSCRINHLIFRGGAQITFLATFDVSPKAVGLDRLLLLANVSSENNIPRTSKTIF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                        HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                             YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMOHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                            QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Prostate cancer; gene expression; differential regulation; molecular marker; drug target; cancer detection; cancer diagnosis; cancer staging; cancer grading; cancer assessing; cancer monitoring.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Protein differentially regulated in prostate cancer #9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABU07406 standard; Protein; 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200281638-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-0CT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1080
     361
                                                                            421
                                                                                                               438
                                                                                                                                                 481
                                                                                                                                                                                      498
                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                               557
                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                      617
                                                                                                                                                                                                                                                                                                                                                                          199
                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABU07406;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 11
                              셤
                                                                          ઠે
                                                                                                     셤
                                                                                                                                             ઠે
                                                                                                                                                                                셤
                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Integring a disease, limiting becomes the control integring autonomic and sensory dysfunction following spinal cord injury by administering and sensory dysfunction following spinal cord injury by administering an anti-alpha disease; integrin, alpha2 subunit) monoclonal antibody to a cord injury victim. The method also involves the use of a ligand selected from ICAM-R or VCAM-1 (intracellular cell adhesion molecule, vascular cell adhesion molecule). The method is useful for promoting locomotor recovery, inhibiting locomotor damage, limiting locomotor impairment, or limiting autonomic and sensory dysfunction for promoting locomotor and injury. In particular, the spinal cord injury comprises compression of the spinal cord. The antibodies are also useful for reducing inflammation at the site of a central nervous system injury. The specification also details the identification of Beta2 integrin alpury alto cord in diseases such as LAD (leukocyte adhesion deficiency, inflammatory response, diabetes, multiple sclerosis, integrins are implicated in diseases such as LAD (leukocyte adhesion deficiency, inflammatory response, diabetes, multiple sclerosis, crohn's disease, ulcerative dolltis, immune complex alveolitis and leukaemia. The present sequence is a Beta2 integrin alpha brotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NFEALKTIQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 FNLDTENAMTFQENARGFGÓSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                         Use of an anti-alpha-d monoclonal antibodies for promoting locomotor recovery, inhibiting locomotor damage, limiting locomotor impairment, or limiting autonomic and sensory dysfunction following spinal cord
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to promoting locomotor recovery, inhibiting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         58.4%; Score 3436; DB 23;
60.6%; Pred. No. 4.1e-278;
iive 148; Mismatches 291;
                                                                                                                                                                                                                                                                                                                                                       Example 5; Page 194-198; 270pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative 148;
                                                                                                                                                                                    Van Der Vieren
                                                                        15-OCT-2001; 2001WO-US32059
                                                                                                             13-OCT-2000; 2000US-0688307
                                                                                                                                                                                                                        WPI; 2002-463260/49.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1163 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                 CORP.
WO200230980-A2.
                                                                                                                                               (ICOS-) ICOS
                                                                                                                                                                                    Gallatin WM,
                                      18-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             684;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sednences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
```

g 8

ò g ò g g

ò

g

ò

ò

1019 1034 1079 1094

780

796

840

854

900

914

```
VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGOGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                       YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEGQKQGQLRSLHLTCDSAPVG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301 NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                         HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QLELPVKYAVYMVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
QTHLTFEEFRRTSNPLSLLASVHQLQGFTYTATAIQNVVHRLFHASYGARRDATKILIVI
                                                                                                                                                                                                                                                                                                                                                                PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                    ONTGMMESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKROYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAR78166 standard; Protein; 1161 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human beta-2 integrin alpha-d.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28-DEC-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAR78166;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1035
                                                                                                                                                                                                                                                                                                                                                                                                        498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                975
                                                                                                                                                                                                                                                                                                                            438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1020
                                                                              258
                                                                                                                                                              318
                                                                                                                                                                                                      361
                                                                                                                                                                                                                                            378
                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAR78166
ID AAR7
XX
XX AAC AAR7
XX DT 28-D
XX DE Huma
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                         a
                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                     ∙ठे
                                                                           a
                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                            C The invention describes genes (1) which are differentially regulated in prostate cancer. (1) Is useful for diagnosing a prostate cancer in a sample comprising prostate tissue, which involves determining the number of the probability that the sample comprises of the number of the probability that the sample comprises of the number is indicative of the probability that the sample comprises prostate cancer. (1) Is useful for assessing a therapeutic or preventive intervention in a subject having a prostate cancer, which involves control for identifying agents that modulate a biological of target genes which are differentially regulated in prostate cancer. (1) is also useful for identifying agents that modulate a biological activity of a polypeptide differentially regulated in prostate cancer cells which involves contacting a polypeptide differentially regulated in prostate cancer cells with a test agent under conditions effective for in prostate cancer cells with a test agent under conditions effective for the test agent to modulate a biological activity of the polypeptide differentially regulated in prostate cancer cells with a test agent modulates the biological activity.

(1) is useful as molecular markers, as drug targets, and for detecting, determining whether the test agent modulates the biological activity.

(1) is useful as molecular markers, as drug targets, and for detecting, determining predisposing, monostical activity.

(2) products are used in the diagnostic test to assay for presence of cancer conditions especially relating to prostate cancer. The blood etc. (1) is useful for assessing cancer e.g., to determine the type of cancer its stage of development, the nature of genetic defect, etc. The polypeptide encoded by (1) can be used as target for therapy or drug discovery. (1) can also be used for expressing the polypeptide and thus concer, its stage of development of the polypeptide of pathways physiologically relevant to prostate cancer. The polypeptide encoded by (1) cancer services and claimical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 79
                                                                                                                                                                                                                                                                                                                                                                    (I) which are differentially regulated in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FPEALRGCPQEDSDIAFUIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FNLDTEELTAFRVDSAGFGDSVVQYANSWVVVGAPQKITAANQTGGLYQCGYSTGACEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                           differentially regulated in prostate cancer, prostate cancer in prostate tissue sample and or preventive intervention in prostate cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     . 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           58.4%; Score 3434; DB 24;
ilarity 60.5%; Pred. No. 6.1e-278;
Conservative 140; Mismatches 300;
                                                                                                                                                                                                                                                                                                                            English.
                                                                                                                                                                                                                                                                                                                                                                    The invention describes genes
                                                                                                                                                                                                                                                                                                                                Claim 1; Page 225-228; 416pp
                                            06-APR-2001; 2001US-281731P. 06-APR-2001; 2001US-281732P.
                                                                                                       (ORIG-) ORIGENE TECHNOLOGIES
      08-APR-2002; 2002WO-US10824
                                                                                                                                                                                                                           Novel genes which are useful for diagnosing
                                                                                                                                                                                                                                              useful for diagnosing assessing therapeutic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>:</u>
::
::
                                                                                                                                                                                       WPI; 2003-058520/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1163 AA;
                                                                                                                                           ö
                                                                                                                                                 Jay
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        683;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                          patients
                                                                                                                                               Sun Z,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Mat
Best Loca
Matches
```

g ò a ò a ò

8

900 919 9 9/9 720 736 780 796 840 854 900 914 959 974

540 556

480

437

497

À.,

```
GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                  TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSROELNTVASKPPRDHVFQIN
                                                      NFEALKTIQNQLREKIFA1EGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                    HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                     PVLRVKAIMBFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                         :||||| || |||||||||| : : ||| FDLALDPGRLTSRAIFNETKNPILTRRKTLGLGIHCETLKLLPDCVEDVVSPIILHLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            960 VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QNTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 integrin alpha d subunit; human; cell migration; adhesion; phagocytosis; diabetes; atherosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human beta 2 integrin alpha d subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAW23049 standard; Protein; 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first
                                                                               316
                                                                                                                                                                                                                                          496
                                                                                                                                                                                                                                                                                                                                                    616
                                                                                                                                                                                                                                                                                                                                                                                                       674
                                                    301
                                                                                                         361
                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAW23049;
                                                                                                                                  376
                                                                                                                                                            421
                                                                                                                                                                                       436
                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                         셤
                                                                                               ઠે
                                                                                                                            g
                                                                                                                                                           ò
                                                                                                                                                                                셤
                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FNLDVEEPTIFQEDAGGFGQSVVQFGGSRLVVGAPLEVVAANQTGRLYDCAAATGMCQPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RLOVPVEAVNMSLGLSLAATITSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PPEALRGCPQEDSDIAFLIDGSGSI1PHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A probe based on a partial cDNA clone (given in AAQ91727) of canine alpha-TM1 was used to screen a human spleen cDNA library to identify clone i9A2 encoding the beta-i integrin alpha-subunit, alpha-d. The cDNA was manipulated to allow expression of recombinant alpha-d subunit in COS and CHO cells.
    arteriosclerosis;
                                                                                                                   this region is homologous to the insert common to CHIIa, b,c and may be a site for interaction with ICAM family proteins"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alpha sub-unit polypeptide of human beta 2 integrin - used to identify potential antiinflammatory agents, for the treatment of graft arteriosclerosis, inflammatory bowel disease, asthma, etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                       /note= "putative cation.binding site"
518..527
 antiinflammatory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 3401; DB 16;
Pred. No. 3.5e-275;
; Mismatches 285;
                                                                                                                                                                                                  "putative cation binding
                                                                                                                                                                                                                            "putative cation binding
                                                                                           'note= "extracellular domain"
.50..352
                                                                                                                                                                                                                                                     /note= "transmembrane region"
1129..1161
/note= "cytoplasmic domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 7; Page 82-87; 172pp; Ehglish
                                                                 cocation/Qualifiers
 pha-d subunit; ar
disease; asthma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 669; Conservative 167;
                                                                                                                      'note= "this
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                57.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Van Der Vieren
                                                                                                                                                                                                                                                                                                                                                                94WO-US14832
                                                                                                                                                                                                                                                                                                                                                                                         94US-0286889
93US-0173497
                                                                                                                                                                                                                                          1109..1128
                                                                                                                                                                                                   /note= "p
  alpha-d
                                                                                                                                                                                                                               'note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1995-240603/31.
N-PSDB; AAQ91712.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1161 AA;
Beta-2 integrin alp
inflammatory bowel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gallatin WM,
                                                                                                                                                           Binding-site
                                                                                                                                                                                                                                                                                                                                                                                         05-AUG-1994;
23-DEC-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                (ICOS-), ICOS
                                         sapiens
                                                                                                                                                                                     Binding-site
                                                                                                                                                                                                              Binding-site
                                                                                                                                                                                                                                                                                                           WO9517412-A1
                                                                                                                                                                                                                                                                                                                                                                21-DEC-1994;
                                                                                                                                                                                                                                                                                                                                      29-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                               Domain
                                                                                                        Region
                                                                                                                                                                                                                                          Region
                                                                                                                                                                                                                                                                     Domain
                                        Ношо
                                                                  Key
```

Ω

ò

g

ò

g ò

ò

780

793

9

673

495

555 9 720 733 840 852 900

360 375

300 315

<u>.</u>

```
TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                301 NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                    361 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                      721 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  794 SSLELNVIVTVWNAGEDSYGTVVSLYYPAGLSHRRVSGAQKQPHQSALRLACETV-PTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              912 ÖLELPVKYAVYTMISRQEESTKYFNFATSDEKKMKEAEHRYRVNNLSQRDLAISINFWVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                          376 GAFLYPPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVQNLVLGAPRYQHTGKAVIFT
                                                                                                                                                                                                                                                                                                    PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAW72825 standard; Protein; 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human alpha-d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 960
                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW72825
                                                                                                                                                                                                                                                                                421
                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                윤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2×2×5×8
                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                         유
                                                                                                                                ઠે
                                                                                                                                                                   셤
                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    77 PLHIRPEAVNMSLGLTLAASTNGSRLLACGPTLHRVCGENSYSKGSCLLLGSRW-EIIQT 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This polypeptide comprises a movel human beta 2 integrin subunit, designated alpha d. Its sequence was deduced from a cDNA clone (see AAT79220) isolated from a spheen cDNA library. Alpha d is involved in cell migration, phagocytosis and cell interaction. Recombinant alpha d polypeptides can be expressed in transformed thost cells for use in assays for identifying antibodies or other compounds that modulate alpha d activity or which modulate the interaction between alpha d activity or which modulate the preventing diseases in which macrophages are implicated. Treatment is applicable to disease states in which alpha d binding, or localised accumulation of calls which express alpha d, is implicated such as such as type I diabetes, atherosclerosis, multiple sclerosis, asthma, psoriasis, lung inflammation, acute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                         7...108
|/label= Extradellular_domain
|1109..1128
|/label= Transmembrane_domain
|/note= "homologous to the human CD11c transmembrane
|region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               rat
                                                                                                                                                                                                                                                                                  /note= "region homologous to the I (insertion) domain common to CD11a, CD11b and CD11c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           57.8%; Score 3401; DB 18; Length 1161; llarity 59.3%; Pred. No. 3.5e-275; Conservative 167; Mismatches 285; Indels 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hybridoma 199M and antibody secreted by it - specific for new beta2 integrin subunit, usefyl to detect subunit in cells and
 multiple sclerosis; asthma; psoriasis; lung inflammation; acute respiratory distress syndrome; rheumatoid arthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    respiratory distress syndrome and rheumatoid arthritis.
                                                                                                                                                                                                                                               /label= Cytoplasmic_domain
150..352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 5; Page 116-120; 222pp; English.
                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Van Der Vieren
                                                                                                                                                                                                                                                                                                                                                                                                                   97WO-US02713
                                                                                                                                                                                                                                                                                                                                                                                                                                                        96US-0605672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 beta2 integrin subuni)
modulate its activity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1997-435154/40.
N-PSDB; AAT79220.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1161 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (ICOS-) ICOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                        22-FEB-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ballatin WM,
                                                                                                                                                                                                                                                                                                                                                                                                                   24-FEB+1997;
                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                           409731099-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  699
                                                                                                                                                                                                                                                                                                                                                                              28-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
                                                                                                                  Domain
                                                                                                                                                      Domain
                                                                                                                                                                                                                              Domain
                                                                                                                                                                                                                                                                   Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Loca
Matches
```

1079

g

ò g

요 ò

ò

1019 1029

959

909 615 999 673 720 733

555

ž

```
Beta-integrin alpha-d subunit; human; modulator; treatment; psoriasis; type-I diabetes; atherosclerosis; multiple sclerosis; asthma; lung inflammation; acute respiratory distress syndrome; rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        912 QLELPVKYAVYTMISRQEESTKYFNFATSDEKKMKEAEHRYRVNLSQRDLAISINFWVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                   PRGORARWOCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                             HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                   HGASESGISPSHSQRIASSQLSPRLQYFGQALSGGQDLTQDGLMDLAVGARGQVLLLRSL
                                                                                                                                                                                                                                                                                                                                                                                                                       PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                          YDLALDSGRPHSRAVFNETKNSTRROTOVLGLTQTCETLKLQLPNC1EDPVSP1VLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SLVREPIPSPONLRPVLAVGSQDLFTASLPFEKNCGQDGLCEGDLGVTLSFSGLQTLTVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNIAGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                           QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Beta-integrin alpha-d subunit protein isolated from clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW65089 standard; Protein; 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        096
                                                     376
                                                                                                                                                                                                                                                                  496
                                                                                                                                                                                                                                                                                                                                                                    929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1090
                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW65089;
                                                                                                           421
                                                                                                                                                            436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW65089
                                             g
                                                                                                                                                            윱
                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       THE SYSTEM STATES TO SET THE STATES TO SET THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES THE STATES T
                                                                                                         ઠે
                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present sequence represents human alpha d. The present invention describes: (1) an antibody that specifically binds alpha d, which is a beta 2 integrin alpha-subunit polypeptide; (2) a monoclonal antibody as in (1); (3) an anti-idiotype antibody specific for the monoclonal antibody of (2); (4) a hybridoma cell line producing the monoclonal antibody of (2). Altibodies specific for alpha d can be used in immunohistochemical analysis to localise alpha d to subcellular compartments or individual cells within tissues. Substances that modulate alpha d binding (which may include antibodies) can be used to treat diabetes, atherosclerosis, multiple solerosis, asthma, psoriasis, lung inflammation, acute respiratory distress syndrome or arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TDGQKYKDPLEYSDVIPQAEKAGIIRYAIGVGHAFQGPTARQELNTISSAPPQDHVFKVD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17 FNLDVEEPTIFQEDAGGFGGSVVQFGGSRLVVGAPLEVVAANQTGRLYDCAAATGMCQPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSROELNTVASKPPRDHVFOIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NFEALKTIQNQLREKIFA1EGTQTGSSSSFEHEMSQEGFSAA1TSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
Alpha-d; beta-2 integrin alpha subunit; extracellular alpha-d; immunoglobulin; fusion protein; binding molecule; antibody; immunohistochemical analysis; diabetes; atherosclerosis; asthma; multiple sclerosis; psoriasis; lung inflammation; arthritis; acute respiratory distress syndrome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          - useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       integrin alpha-subunit d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 3401; DB 19;
Pred. No. 3.5e-275;
7; Mismatches 285;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 5; Column 61-66; 106pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Antibodies specific for beta-2 immunohistochemical analysis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity 59.3%; P
Matches 669; Conservative 167;
                                                                                                                                                                                                                                                                                                                                                                 95US-0482293.
93US-0173497.
94US-0286889.
94US-0362652.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    57.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Vieren
                                                                                                                                                                                                                                                                                                                   95US-0482293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Van Der
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1998-609318/51.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1161 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-PSDB; AAV67281.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SODI (-SODI)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gallatin WM,
                                                                                                                                                                                                                                                                                                                                                                                                                    05-AUG-1994;
21-DEC-1994;
                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                07-JUN-1995;
                                                                                                                                                                                                          US5831029-A
                                                                                                                                                                                                                                                                                                                                                                    07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                 23-DEC-1993;
                                                                                                                                                                                                                                                             03-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                            Ношо
```

. .

" <u>K.</u>

1079

1089

g ठ 요

ઠ

g

ò ď ò

ò

g

ò g

1019 1029

971

780

793

```
436
                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1080
                                                                                                                                                                                            556
                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                      919
                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                     734
                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                               481
       301
                                              361
                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Search
Job tim
                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                               셤
                                                                                                                                                                      Š
                                                                                                                                                                                        셤
                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                           음
                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                           음
                                                                                                                                                                                                                                                                                                                                                                              ठे
                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                 셤
                                                                                                         셤
                                                                                                                               ઠે
                                             ò
                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                     This sequence represents a novel human beta-integrin alpha-d subunit. This sequence is used in a method for identifying compounds that modulate the interaction of alpha-d with a binding partner of alpha-d which involves contacting an alpha-d with an alpha-d which involves contacting an alpha-d polypeptide with an alpha-d binding partner, one of which is immobilised and the other of which is labelled, in the presence of a test compound, and determining if the compound affects binding between the alpha-d polypeptide and alpha-d binding partner, where the alpha-d polypeptide is alpha-d or its fragment comprising the cytoplasmic, transmembrane or extracellular domain of alpha-d. Compounds that modulate alpha-d binding could be used to treat diseases such as type-I diabetes, atherosclerosis, multiple selerosis, sathman sporiasis, lung inflammation, acute respiratory distress syndrome and rheumatoid arthitis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     76
                                                          subunits"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RIHFTFKEFONNPNPRSL | KPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8; Gaps
                                                          CD11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1161;
                                                                                                                                                                                                                                                                                       Screening assay for modulators of integrin binding - using immobilised or labelled alpha-d polypeptide, useful for, e. treating type-I diabetes
                                                          ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                           domain
         17..1161
/note= "Beta-integrin alpha-D subunit"
17..1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tch
al Similarity 59.3%; Pred. No. 3.5e-275;
669; Conservative 167; Mismatches 285;
                                                           insertion
                                                        /note= "homologous to
                                      /label= extracellular
                                                                                                                                                                                                                                                                                                                                    English.
                                                                                /label= cytoplasmic
                                                                                                                                                                95US-0485618.
93US-0173497.
94US-0286889.
94US-0362652.
                                                                                                                                                                                                                                         Van DER VIEREN
                                                                                                                                                                                                                                                                                                                                   Example 5; Fig 1A-D; 106pp;
                                                                                                                                             95US-0485618
                                               150..352
                                                                                                                                                                                                                                                            WPI; 1998-206565/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1161 AA;
                                                                                                                                                                                                                     CORP
                                                                                                                                                                                                                                                                        N-PSDB; AAV35236
                                                                                                                                                                                                                                         Sallatin WM,
                                                                                                                                                                                     05-AUG-1994;
21-DEC-1994;
                                                                                                                                                                                                                    SOOI (-SOOI)
                                                                                                                                             07-JUN-1995
                                                                                                     JS5728533-A
                                                                                                                                                                 07-JUN-1995
                                                                                                                                                                            23-DEC-1993
                                                                                                                         17-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
         Protein
                              Domain
                                                 Domain
                                                                      Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Loca
Matches
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               충
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

1019 1079 840 900 911 959 540 600 615 9 673 720 733 780 793 852 495 555 435 480 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 841 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF VRINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ HGASESGISPSHSQRIASSQLSPRLOYFGQALSGGQDLTQDGLMDLAVGARGQVLLLRSL GPREFNVTVTVRNDGEDSYRTOVTFFFPLDLSYRKVSTLONORSORSWRLACESASSTEV QLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVFLVP PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF NPEALKTIQNQLREKIFAIEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG PRGORARWOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR QNTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128 

rch completed: November 25, 2003, 14:16:30 time : 40.2978 secs

ઠે

```
181 RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL 240
                                                   435, App
1490, Ap
143, App
6, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 FNLDTENAMTFQENARGFGOSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: METHODS FOR IDENTIFYING INTEGRIN ANTACONISTS
TITLE OF INVENTION: METHODS FOR IDENTIFYING INTEGRIN ANTACONISTS
FILE REFERENCE: 00786-26/102
CURRENT APPLICATION NUMBER: US/09/592,617C
CURRENT FILING DATE: 1999-01-30
PRIOR PLING DATE: 1999-01-30
PRIOR PLING DATE: 1994-01-31
PRIOR PLING DATE: 1994-03-21
PRIOR PLING DATE: 1994-03-21
PRIOR PLING DATE: 1994-03-21
PRIOR PLING DATE: 1994-03-21
PRIOR PLING DATE: 1990-01-04
PRIOR PLING DATE: 1990-02-04
PRIOR PLING DATE: 1990-02-04
PRIOR PLING DATE: 1990-02-04
PRIOR PLING DATE: 1990-02-04
PRIOR PLING DATE: 1990-02-08
PRIOR FILING DATE: 1990-02-08
PRIOR FILING DATE: 1990-02-08
PRIOR FILING DATE: 1990-02-08
PRIOR FILING DATE: 1998-06-18
PRIOR FILING DATE: 1998-06-18
PRIOR FILING DATE: 1998-06-18
                                                                             Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Seq
                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 3
                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4
              PCT-USO3-28227-4195
US-10-670-186-435
PCT-USO3-28227-4190
US-10-461-862-143
US-10-417-375-8
PCT-USO3-18234-36
US-10-417-375-8
PCT-USO3-18234-36
US-10-417-375-8
US-60-487-610-1603
US-10-322-281-345
US-60-512-81-345
US-60-512-656-2114
US-60-512-656-2114
US-60-512-656-2114
US-60-512-656-2114
US-60-512-656-2114
US-60-512-656-2114
US-60-512-656-2114
US-60-512-656-2114
US-60-512-656-2114
US-60-512-656-2114
US-60-512-656-2114
US-60-512-656-2114
US-60-512-656-2114
US-60-512-656-2114
US-60-512-656-2114
US-60-512-656-2114
US-60-512-656-2114
US-60-512-656-2114
US-60-512-656-2114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
98.9%; Score 5821.5;
Best Local Similarity 98.9%; Pred. No. 0;
Matches 1125; Conservative 7; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-592-617C-43; Sequence 43, Application US/09592617C; GENERAL INFORMATION:
                                                                             987
695
1029
1029
1029
1038
1049
1130
1130
1130
1130
1130
1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Homo sapiens
, NAME/KEY: SIGNAL
, LOCATION: -16 to
US-09-592-617C-43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1152
10040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
1010-1040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1880, Ap
Sequence 42, Appl
Sequence 2494, Ap
Sequence 2, Appli
Sequence 1507, Ap
Sequence 350, Ap
Sequence 307, Ap
Sequence 307, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                43, Appl
4834, Ap
2, Appli
4833, Ap
11574, Ap
1280, Ap
1788, Ap
1788, Appl
1788, Appl
1788, Appl
2494, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           107, App
3, Appli
8, Appli
10, Appl
10, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2692, Ap
1726, Ap
9, Appli
9, Appli
559, App
                                                                                                                                                                                  November 25, 2003, 14:17:44 ; Search time 12.9635 Seconds (without alignments) 4501.575 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        42,
                                                                                                                                                                                                                                                                                                                                                        1 FNLDTENAMIFQENARGFGQ.....FKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pending Patents Ah New:*

1: /cgn2 6/ptodata/1/paa/PCT NEW COMB.pep:*

2: /cgn2_6/ptodata/1/paa/USO6_NEW_COMB.pep:*

4: /cgn2_6/ptodata/1/paa/USO9_NEW_COMB.pep:*

5: /cgn2_6/ptodata/1/paa/USO9_NEW_COMB.pep:*

6: /cgn2_6/ptodata/1/paa/USO9_NEW_COMB.pep:*

7: /cgn2_6/ptodata/1/paa/USO9_NEW_COMB.pep:*

7: /cgn2_6/ptodata/1/paa/USO9_NEW_COMB.pep:*
                         version 5.1.6
- 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             $\text{$\text{$V$}$} \text{$\text{$V$}$}                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-60-493-369-9
US-60-512-690-9
US-60-490-890-559
US-10-461-862-146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PCT-US03-00252A-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               271250 seqs, 51324744 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUMMARIES
                                                                                                                                       - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bummaries
                         GenCore
Copyright (c) 1993
                                                                                                                                                                                                                                                                                                                                                                                                               BLOSUM62
Gapop 10.0 , Gapext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. is the number of
                                                                                                                                                                                                                                                                                                       US-09-902-481B-4
5884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Minimum DB seq
Maximum DB seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3436.5
3336.5
3050.5
1546.5
1144.1
11054.1
1054.1
1054.1
1055.1
1052.1
1052.1
1052.1
1052.1
1052.1
1052.1
1053.1
1051.5
1051.5
                                                                                                                                                                                                                                                                                                                                 Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                               Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score
                                                                                                                                       OM protein
                                                                                                                                                                                                                                                                                                                                                              Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Database
                                                                                                                                                                                          Run on:
```

Ä

120 136 180 196

ò g ò 임 ò g ò g ò g ò

```
NAME/KEY: misc_feature
OTHER INFORMATION: Incyte ID No: 965829.PT40p
                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION: (1) ... (1200)
OTHER INFORMATION: unknown or other
                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
NAME/KEY: ungure
LOCATION: (1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; OTHER INFORMATI
PCT-US03-28227-4834
                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
NAME/KEY: misc_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FFGIQEEFNATIKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                             496
                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                       999
                                                                                                                                                                                                                                                                                                                                                  675
                                                                                                                                                                                                                                                                                                                                                                                                                                                             795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    975
                                                                                                                                                   480
                                                                                                                                                                                                                                     555
                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                           615
                                                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                       735
                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            915
          316
                                       360
                                                                                            420
                                                                                                                       436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                     NFEALKTIQNOLREKI FAIEGTOTGSSSSFEHEMSQEGFSAAI TSNGPLLSTVGSYDWAG
                                                                 NFEALKTIONOLREKIFAIRGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                            HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                        PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                    YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                             SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNI CQDDLSI TFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                   736 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      796 GPRESNVTVTVRNDGEDSXRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SCALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QLELPVKYAVYWVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSPP1SLVFLVPV
                                                                                             GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                    ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: INCYTE CORPORATION; SCHMIDT, Jeanette P.;
APPLICANT: MRIGHT, Rachel J.; BRUNS, Christopher M.;
APPLICANT: MARJANOVIC, Mirjana M.; SHEN, Fan;
APPLICANT: HARTSHONE, Toinette A.; SUCHOROLSKI, Martin;
APPLICANT: ALTUS, Christina M.; PITTS, Steven J.;
APPLICANT: ELDER, Linda V.; MOONEY, Elizabeth M.;
APPLICANT: 'DELEGEANE, Angelo M.; PANESAR, Iqbal S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 4834, Application PC/TUS0328227 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PCT-US03-28227-4834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1081
          257
                                                                 317
                                                                                                                                                                                                         481
                                                                                                                                                                                                                                     497
                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                              556
                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        901
                                       301
                                                                                                                       377
                                                                                                                                                                             437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                              361
                                                                                                                                                   421
```

a ò g qq

ò

õ

a ò 유 ò g ò q ò g ò g

120 180 240 317 360 377 420 437 480 137 197 257 300 497 9 79 : ||||:||:|||:|| |||:|| ||| : ||| : ||| ||:|| ||| ::|||| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ||| ::|| ::|| ||| ::|| ::|| ||| ::|| ::|| ::|| ::|| ::|| ::|| ||| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| ::|| :: TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN NFEALKTIONOLREKI FAIEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI Query Match 58.5%; Score 3444.5; DB 1; Length 1200; Best Local Similarity 59.1%; Pred. No. 2.4e-191; Matches 689; Conservative 142; Mismatches 292; Indels 43; AND THERAPEUTICS 

ŝ

FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI

8

1079 1019 1029 1089 495 720 959 360 420 435 480 540 555 600 615 999 673 733 780 793 840 852 900 911 971 240 TDGEKFGDPLGYEDVI PELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300 375 120 135 180 195 255 17 FNLDVEEPTIFQEDAGGFGQSVVQFGGSRLVVGAPLEVVAANQTGRLYDCAAATGMCQPI 76 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 912 QLELPVKYAVYTMISRQEESTKYFNFATSDEKKMKEAEHRYRVNNLSQRDLAISINFWVP VRLNGTVIMDRPQVTFSENLSSTCHTKERLPSHSDFLABLRKAPVVNCSIAVCQRIQCDI VILNGVAVWDVVMBAPSQSL--PCVSERKPPQHSDFLTQISRSPWLDCSIADCLQFRCDV PFFGIQEEFNATLKGNLSFDWYIXTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE RIHFTFKEFONNPNPRSLIKPITQLLGRIHTATGLRKVVRELFNITNGARKNAFKILFLL NFEALKTIONOLREKIFALEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG PRGQRVQWQCDAVLRGEQGHPWGRFGAALTVLGDVNEDKLIDVAIGAPGEQENRGAVYLF PVLRVKAIMEPNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT 661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF QLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVFLVP FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF 256 TDGQKYKDPLEYSDVIPQAEKAGIIRYAIGVGHAFQGPTARQELNTISSAPPQDHVFKVD QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF HGTSGSG1SPSHSQR1AGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK TKVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKDMMSE 1128 ò

556

480

497

437

9 614 99 720

681 780 741

621

799 900 859 959

g

```
VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSGTE 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   860 OLELPVKYAVYTVVSSHEQFTKYLNFSESEEKESHVAMHRYOVNNLGÖRDLPVSINFWVP 919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV 840
541 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                            TVSSOTO ----------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEGQKQGQLRSLHLTCDSAPVG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QLELPVXXAVYMVVTSHGVSTXYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                           QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                     PRGORARWOCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKROYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: INCYTE CORPORATION; SCHMIDT, Jeanette P.;
APPLICANT: INCYTE CORPORATION; SCHMIDT, Jeanette P.;
APPLICANT: MARJANOVIC, Mirjana M.; SHEN, Fan;
APPLICANT: HARTSHORNE, Toinette A.; SUCHOROLSKI, Martin;
APPLICANT: ALTUS, Christina M.; PITTS, Steven J.;
APPLICANT: BLDER, Linda V.; MOONEY, Elizabeth M.;
APPLICANT: DELEGENE, Angelo M.; PANESAR, Iqbal S.;
APPLICANT: BANVILLE, Steven C.; REDDY, Thirupathi P.;
APPLICANT: STEVENS, Kristian A.; BLANCHARD, John L.;
APPLICANT: STEVENS, Kristian A.; BLANCHARD, John L.;
APPLICANT: PRAIZER, Scott R.; WANG, Xinhao;
APPLICANT: AU, Alan P.; GERSTIN, Edward H.; Jr.;
APPLICANT: REALTA, CAREADA H.; ANDERSON, SCOTT E.;
APPLICANT: RIOUX, Pierre; SHEN, Edward J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; Sequence 4832, Application PC/TUS0328227; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PCT-US03-28227-4832
                                                                                                                                                                                                                                                                                                                                                            498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                                                                                                                              421
                                                                                                                                                                                                                                                 438
                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                     ठ
                                                                                                                                 요
                                                                                                                                                                                              ò
                                                                                                                                                                                                                                         용
                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHFTFEEFRRSSNPLSLAASVHQLQGFTYTATAIQNVVHRLFHASYGARRDAAKILIVI 257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHOTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 FPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RIHFTFKEFQNNPNPRSLİKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TDGKKEGDSLDYKDVIPMADAAGIIRYAIGVGLAFQNRNSWKELNDIASKPSQEHIFKVE 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301 NFEALKTIQNQLREKIFAJEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 FNLDTENAMIFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80 GLÓVPPEAVNMSLGLSLASTISPSÓLLACGPIVHHECGRNMYLIGLCFLLGPI--ÓLTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61; Gaps
                                                                                                                                                                               General Incorration:
APPLICANT: INCYTE CONSTRUCTS
APPLICANT: WRIGHT, Rachel J.; BRUNS, Christopher M.;
APPLICANT: WARIGHT, Rachel J.; BRUNS, Christopher M.;
APPLICANT: MARTSHONUS, Misser, Stewen J.;
APPLICANT: HARTSHONUS, Toinette A.; SUCHOROLSKI, Martin;
APPLICANT: BLEEGEARE, Linda V.; MOONEY, Elizabeth M.;
APPLICANT: ELDER, Linda V.; MOONEY, Elizabeth M.;
APPLICANT: BLEEGEARE, Linda V.; MOONEY, Elizabeth M.;
APPLICANT: BRAVILLE, Steven C.; REDDY, Thirupathi P.;
APPLICANT: STEVENS, Kristina M.; PANESAR, Idpal S.;
APPLICANT: PERALTA, Careyna M.; ANDERSON, Scott E.;
APPLICANT: PERALTA, Careyna M.; ANDERSON, Scott E.;
APPLICANT: PERALTA, Careyna M.; ANDERSON, Scott E.;
APPLICANT: MU, Mingham C.; STUVE, Laura L.;
APPLICANT: MU, Mingham C.; STUVE, Laura L.;
APPLICANT: MU, Mingham C.; STUVE, Laura L.;
APPLICANT: VITT, Ureula A.; KIRTON, Edward;
APPLICANT: VITT, Ureula A.; KIRTON, Edward;
APPLICANT: STEWART, Elizabeth A.; WINGROVE, James A.;
APPLICANT: STEWART, Elizabeth A.; WINGROVE, James A.;
APPLICANT: STEWART, Elizabeth A.; WINGROVE, James A.;
APPLICANT: STEWART, Pennifer L.;
APPLICANT: STEWART, STEME STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, STEWART, ST
     1090 MVLEEDEVYNAIPIIMGSSVGALLLLALITATLYKLGFFKRHYKEMLED 1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1108;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 59.3%; Pred. No. 3.9e-185;
Matches 670; Conservative 128; Mismatches 270; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: misc_feature
; OTHER INFORMATION: Incyte ID No: 965829.PT35p
PCT-US03-28227-4833
                                                                                                                                       Sequence 4833, Application PC/TUS0328227
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   198
```

g ð 셤 ò q ò g ò g

621

681

900

```
CHIKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYI 1042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          941 -------QVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSST 982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VIRUS-INFECTED SUBJECTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        920 TGEGFGLWRGLCPQCPLXQVNNLGQRDLPVSINFWVPVELNQEAVWMDVEVSHPQNPSLR
622 IDLALDPGRLSPRATFQETKNRSLSRVRVLGLKAHCENFNLLLDSCVEDSVTPITLRRNF
                                                                                                                                                                                                           781 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                SQGTWSTSCRINHLIFRGGAQITFLATFDVSPKAVLGDRLLLTANVSSENNTPRTSKTTF
                                                                                                                                                                                                                                                                                                                                                                                                                                860 ÓLELPVKYÁVYTVVSSHEQFTKYLNFSESEEKESHVAMHRYQAGGGDAGDWAGVGGWEPE
                                                   601 PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                       TVSSQ10----
                                                                                                                       661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                         SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                              SNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEGQKQGQLRSLHLTCDSAPVG--
                                                                                                                                                                                                                                                                                                                             SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 51.8%; Score 3050.5; DB 7; Length 1047;
Best Local Similarity 54.7%; Pred. No. 1.2e-168;
Matches 610; Conservative 146; Mismatches 256; Indels 103; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 15.4. Application US/60487610
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: CARGILL, Michele
TITLE OF INVENTION: LIVER FIBROSIS IN HEPATITIS C VIRUS-INFEC
TITLE OF INVENTION: LIVER FIBROSIS IN HEPATITIS C VIRUS-INFEC
FILE REFERENCE: CLOOL469
CURRENT APPLICATION NUMBER: US/60/487,610
CURRENT FILING DATE: 2003-07-17
NUMBER OF SEQ ID NOS: 97101
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 1574
                                                                                                                                                                                                                                                                                                                                                                                                QLELPVKYAVYMVTSHGVSTKYLNFTAS-ENTSRVMQHQY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1100 LLLALITAVLYKVGFFKRQYKEMMEE 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; TYPE: PRT
; ORGANISM: Homo
US-60-487-610-1574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -60-487-610-1574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1103
                   557
                                                                                       615
                                                                                                                                                                                         721
                                                                                                                                                                                                                           682
                                                                                                                                                                                                                                                                                           742
                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                               800
                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        980
                                                                                                                                                                                                                                                                                                                                                                                       કે
                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ŕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                 g
                                                                                                                                                셤
                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      윱
                                                   ò
                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80 GLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NFEALKTIONOLREKIFAIRGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTWDGLVDLTVGAQGHVLLLRSQ 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 RLOVPVEAVNMSLGLSLAATTSPPOLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241 TDGEKFGDPLGYEDVIPELÜREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             258 TDGKKEGDSLDYKDVIPMADAAGIIRYAIGVGLAFQNRNSWKELNDIASKPSQEHIFKVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     138 LPVSRQECPRQEQDIVFLIDGSGSISSRNFATMMNFVRAVISQFQRPSTQFSLMQFSNKF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RIHFTFKEFONNPNPRSLIKPITOLLGRIHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
        98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ch 56.2%; Score 3308; DB 1; Length 1 i Similarity 57.5%; Pred. No. 1.8e-183; 670; Conservative 128; Mismatches 270; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                  965829.PT34p
                                                                                                                                                                                                                                                                                                                                                                                                                                      ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; LOCATION: (1) ... (1145)
; OTHER INFORMATION: unknown or
PCT-US03-28227-4832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 57.5%;
Matches 670; Conservative 12.
                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: misc feature
OTHER INFORMATION: Incyte ID
 Mingham C.;
                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: unsure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
 APPLICANT
```

g

ò 셤 ò

ò 셤 ò g ò g

ò g ò g ò g ò a

. د

```
APPLICANT: CARGILL,
APPLICANT: HUANG, H
60-487-610-1880
                                                                                                               LENGTH: 1170
                                                                                                                                                                                                                                                                                                                                                                     310
                                                                                                                                                                                                                                                                                                                                                                                                      370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      199
                                                                                                                                                                                                      26
                                                                                                                                                                                                                      29
                                                                                                                                                                                                                                                                       141
                                                                                                                                                                                                                                                                                     175
                                                                                                                                                                                                                                                                                                     197
                                                                                                                                                                                                                                                                                                                      235
                                                                                                                                                                                                                                                                                                                                                                                      355
                                                                                                                                                                                                                                                                                                                                                                                                                                                     471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      648
                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                      엄
                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                 ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960 VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      995
                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                       99
                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                       780
                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                      836
                                                                                                                                                                                                                                                                                                                                                                                                                                                      959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      877
                                                                                                                       360
                                                                                                                              420
                                                                                                                                                                                       480
                                                                                                                                                                                               556
                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                       616
                                                                                                                                                                                                                                                                                                     674
                                                                                                                                                                                                                                                                                                                                     734
                                                                                                                                                                                                                                                                                                                                                                     794
300
                                                                                                                                                                HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                -----STKYFNFATSDEKKMKEAEHRYRVNNLSQRDLAISINFWVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FDLALDPGRLTSRAIFNETKNPTLTRRKTLGLGIHCETLKLLLPDCVEDVVSPIILHLNF
                                                                                                                                                                                                                                                                                                                                                                                      781 GPREFNUTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                      SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                      901 OLELPVKYAVYMVTSHGVSTKYLNF-TASENTSRVMQHOYQVSNLGQRSLPISLVFLVP
                                                                197 KIHFTFTQFRTSPSQQSLVDPIVQLKGLTFTATGILTVVTQLFHHKNGARKSAKKILIVI
                                                                                                                                                                                                                       PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                PRGORVQWOCDAVLRGEQGHPWGREGAALTVLGDVNEDKLIDVAIGAPGEQENRGAVYLF
                                                                                                                                                                                                                                                                                       PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                        FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                       TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                        NFEALKTIONOLREKIFAIEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                       GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                        QNTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                      YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                  RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                               795 SSLELNVIVTVWNAGEDSYGTVVSLYYPAGLSHRRVSGAQEE-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYK 1114
                                                                                                                                                                                                                                        497
                                                                                                                                                                                                                                                                                                                       . 199
                                                                                                                                                                                                                                                                                                                                       675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1080
                                                                                                                                                                                                                                                                                                      517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      936
                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                     735
                       121
                                        137
                                                                                                       257
                                                                                                                                                                       377
                                                                                                                                                                                                        437
                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                       557
                                                                                                                                                                                                                                                                                                                                                                                                                                      837
                                                        181
                                                                                        241
                                                                                                                        301
                                                                                                                                                       361
                                                                                                                                                                                        121
                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                  8 8 8
                                                                                                                                                                                                                                                                                                                                                                                3 4 3 4
                                                                                                                                                                                                                     6 6 6 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                  ò
                                                                                                  8 & 8
                                                                                                                                                  8 6 8 6
                       ò
                                       임
                                                       9 · 6
```

RESULT

```
37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     354
                                                      APPLICANT: HUMG, Hongjin
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: LIVER FIBROSIS IN HEPATITIS C VIRUS-INFECTED SUBJECTS,
TITLE OF INVENTION: MITHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CLOO1469
CURRENT APPLICATION NUMBER: US/60/487,610
CURRENT FILING DATE: 2003-07-17
NUMBER OF SEQ ID NOS: 97101
SOFTWARE: FASESEQ for Windows Version 4.0
SEQ ID NO 1880
                                                                                                                                                                                                                                                                                                                                                                                                                                                           81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVV - KGKEAGEVRVCLHVQKSTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EDPVSPIVLRINFSL---VGTPLS--AFGN-----LRPVLAEDAQRLFTALFPFEKNCGN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -QQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LQGRPGFQECIKG----NVDLVFLFDGSMSLQPDEFQKILDFMKKLSNTSYQFAAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RGGOVSVCPLPRGQRARWQCDAV - LYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 FNLDTENAMTFQ - - ENARGEGOSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCE
                                                                                                                                                                                                                                                                                                                                                                                                                                             PIRLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLR---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QYSEBFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KILFLLTDGEKFGDPLGYEDVI PELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AKDWAGGFLDLKADLQDDTFIGNEPLTPEVRAGYLGYTVTWLPSRQKTSLLASGAPRYQH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        413 IGLVAMFR--QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DRLREGGIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCI
                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                               Length 1170;
                                                                                                                                                                                                                                                                                                                                                                                Indels 101;
                                                                                                                                                                                                                                                                                                                                           DB 7;
                                                                                                                                                                                                                                                                                                                                           Query Match 26.3%; Score 1546.5; DB 7; Best Local Similarity 34.3%; Pred. No. 9.4e-82; Matches 403; Conservative 210; Mismatches 460;
Sequence 1880, Application US/60487610 GENERAL INFORMATION:
                                       Michele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
CRGANISM: Homo sapiens
US-60-487-610-1880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

į,

```
US-60-487-610-1788 ; Sequence 1788, Application US/60487610
                                                                                                                                                                                                                                                                                                                                                                KIHOVKHMYQVRIQPSIHDHNIPTLEAVVGVPQPPSEGPITHOWSVQMEPPV--PCHYED 1002
                                                                                                                                                                                                                                                                                                                                       -ERLPSHSD--FLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIK 1043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        140
                                                                                                                                                     887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               59 PIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLR--- 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                141 LQRRPGFQECIKG----NVDLVFLFDGSMSLQPDEFQKILDFMKKVLSNTSYQFAAV 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -QQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLM 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81
 QDLISPINVSLNFSLWEEEGTPRDQRAQGKDIPPILRPSLHSETWEI-----PFEKNCGE
                                    DNICODDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVS
                                                                                                                                     LGNKLLLKANVTSENN----MPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASEN
                                                                                                                                                                                                             TSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DKKCEANLRVSFSPARSRALRLTAFASLSVELSLSNLEEDAYWVOLDLHFPPGLSFRKVE
                                                                                                              TLQNQRSQRSWRLACES - - ASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKAS
                                                                                                                                                                                                                                                             TSRVMQHQYQV---SNLGQRSLP-ISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTK-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26 YNLDVRGARSFSPPRAGRHFGYRVLQV-GNGVIVGAPGE---GNSTGSLYQCQSGTGHCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 FNLDTENAMTFQ--ENARGEGOSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PAPELCANT: Arnacut, M. Armin
TITLE OF INVENTION: METHODS FOR IDENTIFYING INTEGRIN ANTAGONISTS
FILE REFERENCE: 00786-267002
CURRENT APPLICATION NUMBER: US/09/592,617C
CURRENT FILING DATE: 2000-06-13
PRIOR APPLICATION NUMBER: US 08/216,081
PRIOR PAPLICATION NUMBER: US 08/216,081
PRIOR FILING DATE: 1994-03-21
PRIOR FILING DATE: 1994-03-21
PRIOR PAPLICATION NUMBER: US 07/637,830
PRIOR PLING DATE: 1999-06-18
PRIOR PPLING DATE: 1999-06-18
PRIOR PPLING DATE: 1999-06-18
PRIOR PPLING DATE: 1998-06-28
NUMBER OF SEQ ID NOS: 72
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match

26.2%; Score 1543.5; DB 5; Length 1170;
Best Local Similarity 34.3%; Pred. No. 1.4e-81;
Matches 403; Conservative 210; Mismatches 460; Indels 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LLALITAALYKLGFFKRQYKDMMSEG-GPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 42, Application US/09592617C GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 8
US-09-592-617C-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-592-617C-42
 719
                                                                                                                                                                                                                          888
                                                                                                                                                                                                                                                                                                                                                                                                               1044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1103
                                    758
                                                                                                                                                                                    876
                                                                                                                                                                                                                                                             932
                                                                                                                                                                                                                                                                                                945
                                                                                                                                                                                                                                                                                                                                       987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        116
셤
                                                                     g
                                                                                                                                     a
                                                                                                                                                                                  9 8
                                                                                                                                                                                                                                                                                       a
                                    ઠે
                                                                                                        ò
                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                   8 6
                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
```

```
987 -ERLPSHSD--FLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIK 1043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1044 TSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLL 1103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1003 LERLPDAAEPCLPGALFRCPVV-------FRQEILVQVIGTLELVGEIE 1044
                   QFSTSYKTEFDFSDYVKWKDPDALLKHVKHMLLLTNTFGAINYVATEVFREELGARPDAT 256
                                                               354
                                                                                                                 310 FVKILDTFEKLKDLFTELQKKIYVIEGTSKQDLTSFNMELSSSGISADLSRGHAVVGAVG 369
                                                                                                                                                      412
                                                                                                                                                                            429
                                                                                                                                                                                                                   528
                                                                                                                                                                                                                                                                                 544
                                                                                                                                                                                                                                                                                                          588
                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                           647
                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                             707
                                                                                                                                                                                                                                                                                                                                                                                                                          661 PQF-QGRLVANLTYTLQLDGHRTRRRGLFPGGRHELRRNIAVT-TSMSCTDFSFHFPVCV 718
                                                                                                                                                                                                                                                                                                                                                                                                                                                              757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           944
                                                                                                                                                                                                      IGLVAMFR--QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQT 470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TLQNQRSQRSWRLACES - - ASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKAS 875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LGNKLLLKANVTSENN----MPRTNKTEPQLELPVKYAVYMVVTSHGVSTKYLNFTASEN 931
                                                                                                                                                                                                                                                                                                                                                                       QYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAF
                                                                                                                                                                                                                                                                                                                    545 LEB--QGAVYIFNGRHG-GLSPQPSQRIEGTQVLSGIQWFGRSIHGVKDLEGDGLADDVAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRD
                                                                                                   HVFQINNFEALKTIQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAALTSNGPLLSTVG
                                                                                                                                                                     GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                                                                                                                         GAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVV-KGKEAGEVRVCLHVQKSTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNICODDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 834 ML---KPHSQIPVSCEELPEESRLLSRAL---SCNVSSPIFKAGHSVALQMMFNTLVNSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                945 KIHQVKHMYQVRIQPSIHDHNIPTLEAVVGVPQPPSEGPITHQWSVQMEPPV--PCHYED
                                                                                                                                                  SYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQH
                                                                                                                                                                                                                                                     RGGQVSVCPLPRGQRARWQCDAV--LYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                                                                                                                                            DRLREGGIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                            EDPVSPIVLRINFSL---VGTPLS--AFGN-----LRPVLAEDAQRLFTALFPFEKNCGN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  932 TSRVMQHQYQV---SNLGQRSLP-ISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTK-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LLALITAALYKLGFFKRQYKDMMSEG-GPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 818
                                                  235
                                                                                                   295
                                                                                                                                                                           370
                                                                                                                                                                                                                             430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  876
                         197
                                                                                                                                                     355
                                                                                                                                                                                                      413
                                                                                                                                                                                                                                                      471
                                                                                                                                                                                                                                                                                                         529
                                                                                                                                                                                                                                                                                                                                                         589
                                                                                                                                                                                                                                                                                                                                                                                  602
                                                                                                                                                                                                                                                                                                                                                                                                            648
                                                                                                                                                                                                                                                                                                                                                                                                                                                            708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1103
                     유
                                                  ઠે
                                                                    ద
                                                                                                ઠે
                                                                                                                        g
                                                                                                                                                   δ
                                                                                                                                                                      윱
                                                                                                                                                                                                   ò
                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                      엄
                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
```

**d**...

<del>..</del>.

45 GSLYQCDYSTGSCEPI-RLQVPVEAVNMSLGLSLL  65 GPLHRCSLVQDEILCHPUEH :	OY 225 ITNGARKNAFKILFLLTDGEKFGDPLGYEDVIPELDREGVIR:	Qy         345 SNGP-LLSTVGSYDWAGGVFLY-TSKEKSTFINMTRVDSDMN           412 DERQVLLGAVGAFDWSGGALLYDTRSRRGRFLNGTAAAAADA           Qy         399 RVQSLVLGAPRYQHIGLVAMFR-QNTGMESNANV-KGTQIG           Db         472 CSLSYVAGAPRYKHG-AVFELQKEGREASFLPVLEGEGMG	QY         457         DLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQ           Db         :	QY         571 SLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFN           Db         648 SMAGGFDISGDGLADITVGTLGQAVVFRSRPVVRLKVSMAFT           QY         631 KEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALDSGRPHS           Db         698 NGVVNVRLCFEI - SSVTTASESGGLREALLNFTLDVDVGKQRR	QY 691 GLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLVGTPLS Db 757 SGSQLCEDL-LLMPTEGELCEEDFSNASVKVSYQL-QTPEG QY 747 ALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGGPREFNVT Db 815 FQLPYEKACKNKLFCVAELQLA-TTVSQQELVGLTKELTLN QY FPLDLSYRKVSTLQNQRSQRSMRLACESASSTEVSGALKSTS		Qy 978 NLSSTCHTKERLPSHSDFLAELRKAPVUNCSIAVCQRIQCDI : :     :
8 4 8 4 8 4 8 8	8 8 8		0 0 0 0				——
LYMORPHISMS ASSOCIATED WITH ROSIS IN HEPATITIS C VIRUS-INFECTED SUBJECTS, F DETECTION AND USES THEREOF /60/487,610 17 Version 4.0	ch 1 Similarity 57.8%; Pred. No. 2.9e-60; 227; Conservative 61; Mismatches 103; Indels 2; Gaps 1; 1 FNLDTENAMTFQENARGFGGSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI 60 20 FNLDTELTAFRVDSAGFGGSVVVQYANSWVVVGAPQKITAANQTGGLYQCGYSTGACEPI 79	61 RLQVPVBAVMASLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120			/60487610 POLYMORPHISMS ASSOCIATED WITH IBROSIS IN HEPATITIS C VIRUS-INPECTED SUBJECTS,		Score 1144; DB 7; Length 1179; F; Pred. No. 1.7e-58; 213; Mismatches 451; Indels 172; Gaps 39;
GENERAL INFORMATION: APPLICANT: CARGILL, Michele APPLICANT: HUANG, HORGII TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITTILE OF INVENTION: LIVER FIRROSIS IN HEPATITIS C VIRUSTILLE OF INVENTION: METHODS OF DETECTION AND USES THERE; FILE REFERENCE: CLOO1469: CURRENT APPLICATION NUMBER: 2003-07-17 CURRENT APPLICATION NUMBER: 2003-07-17 NUMBER OF SEQ ID NOS: 97101 SOFTWARE: PRESESCO for Windows Version 4.0 SEQ ID NO 1788 LENGTH: 413 TYPE: PRT CORGANISM: Homo sapien8	Query Match  Best Local Similarity 57.8%;  Batches 227; Conservative 6  Qy   FNLDTENAMTFQENARGFC  Db                 ::        Db   FNLDTELTAFRUDSAGFC	Oy 61 RLOVPVEAVNMSLGLSLAATTSPPQLLAC	OY 181 RIHFTFKEFONNPNPRSLIKPITOLLGRT	OY 301 NFEALKTIONOLREKIFAIEGTOTGSSSSFEHER	RESULT 10 US-60-487-610-2494 ; Sequence 2494, Application US/60487610 ; GENERAL INFORMATION: APPLICANT: CARGILL, Michele ; APPLICANT: HUANG, Hongin ; TITLE OF INVENTION: GENETIC POLYMORPHISMS ! TITLE OF INVENTION: LIVER FIBROSIS IN HER	111LE REFERENCE: CL001463 C; CURRENT APPLICATION NUMBER: US CURRENT FILING DATE: 2003-07- NUMBER OF SEQ ID NOS: 97101 SOFTWARE: FastSEQ for Windows; SEQ ID NO 2494 LENGTH: 1179 TYPE: PRT ORGANIEM: HOMO SapienB US-60-487-610-2494	Ouery Watch Best Local Similarity 29.09 Matches 341; Conservative

```
|| :| :: :: | :: VPTKLRGLQVVAVKKLTRTQ 1028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DIPFFGIQEEFNATLKGNLS 1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               :: | |: :|
-----SDKENVTVAAEIS 1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SHSQRIAGSKLSPRLQYFGQ 570
                                                                                                                                                                                                                                                                                                                                                                                                                                               SOGOPWGRFGAALTVLGDVN 516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INPREVARNVFECNDQVVKG 630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             --LELPVKYAVYMVTSHGV 919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VPVRLNQTVIWDRPQVTFSE 977
                                                                                                                                                                                                                                                                                                                                                                                                            GSYFGSELCPVDIDMDGST 529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TPSALP-----IGF 697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HSRAVFNETKNSTRRQTQVL 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RRELQCSDVRSCLGCLREWS 756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SAFGNLRPVLAEDAORLFT 746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             : : | : |
EGOTDHPOPILDRYTEPFAI 814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VTVTVRNDGEDSYRTQVTFF 806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . . . . | | | | | | .
LNINLTNSGEDSYMTSMALN 873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SCSINHPIFPENSEVTFNI 866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ANCRIGHPVL-KRSSAHVSV 923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                : : | : : | : : | SFVAVLSKPSIMYVNTGQGL 983
                                                                                                                                                                                                                                                                            SSSSFEHEMSQEGFSAAIT 344
::::| | | | | |
:VGDALHYQLAQIGFSAQIL 411
                                                                                                                                                                                                                                                                                                                                  GAYFGASLCSVDVDSNGST 456
                 : |:| | |
ICI-----QVLVRRP--HS 117
                                                     119
                                                                                TGDCYSNKEGGGEDDVNTA 174
                                                                                                        HDPRRMKEWYSTVMEQL-- 164
                                                                                                                                                                LIGRITHTATGLRKVVRELFN 224

LI | | | : : | : |

GSVTKTASAMQHVLDSIFT 294
                                                                                                                                                                                                                      RYVIGVGDAFRSEKSRQEL 284
LAATTSPPQLLACGPTVHQ 95
```

Db 589 QDKLTDVAIGAPLEGFGADDGASFGSVYING-HWDGLSAFSQRIRASTVAPGLQYFGM 647  Qy 571 SLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKG 630	### ### ##############################	OY   978 NLSSTCHTKERLPSHSDFLAELRKAPVNCSIAVCQRIQCDIPFFGIQEEPNATLKGNLS 1037	RESULT 12 US-60-487-610-1507 is Sequence 1507, Application US/60487610 is GENERAL INFORMATION: is APPLICANT: CARGILL, Michele is APPLICANT: HUMAG, Hongjin it TITLE OF INVENTION: LIVER FIBROSIS IN HEPATITIS C VIRUS-INFECTED SUBJECTS, it TITLE OF INVENTION: METHODS OF DETECTION AND USES THEREOF it TITLE OF INVENTION: METHODS OF DETECTION AND USES THEREOF it TITLE OF SEQUENCE: CL001487,610 is CURRENT APPLICATION NUMBER: US/60/487,610 is CURRENT APPLICATION NUMBER: US/60/487,610 is SOFTWARE: FastSEQ for Windows Version 4.0 is SEQ ID NO 1507 it ENOTH: 1149 it TYPE: PRT in ORGANISM: Homo sapiens US-60-487-610-1507	Query Match Best Local Similarity 27.7%; Pred. No. 3.5e-56; Matches 343; Conservative 212; Mismatches 485; Indels 197; Gaps 44;  Qy 1 FNLDTENAMTFQENARG-FGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGS 56
OY 1038 FDWYIKTSHNHLLIVSTAEILFNDSVFTLLPCGGAFVRSOTETKVEPFEVPNPL 1091	03/18234 3,551 ion 4.0	Query Match         19.4%;         Score 1140;         DB 1;         Length 1179;           Best Local Similarity 28.9%;         Pred. No. 2.8e-58;         Matches 340;         Conservative 214;         Mismatches 451;         Indels 172;         Gaps 39;           Qy         45 GSLYOCDYSTGSCEPI-RLOVPVEAVMNSLGLSLAATTSPPQLLACGFTWHQ 95	QY 120 KFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQL 164    1	OY 399 RVOSLVLGAPRYQHIGLVAMER-QNTGMWESNANV-KGTQIGAYFGASLCSVDVDSNGST 456  Db 472 CSLSYVAGAPQYKHIGAVFELQKEGREASFLPVLEGEQMGSYFGSELCPVDIDMDGST 529  QY 457 DLVLIGAPHYYEQTRGGQVSVCPLFRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVN 516

۷.

Db 1077 GELR		RESULT 13 US-10-474-794-250 ; Sequence 250, Applicati	; GENERAL INFORMATION: ; APPLICANT: Carson-N: ; APPLICANT: St. Croix.t ; APPLICANT: Vogelstein	; APPLICANI: KINZIEI, F ; TITLE OF INVENTION: EN ; FILE REFERENCE: 1107.C	; CURRENT FILING DATE: ; PRIOR APPLICATION NUME ; PRIOR APPLICATION NUME ; PRIOR APPLICATION NUME	FALOR FILLING DATE: 20 ; NUMBER OF SEQ ID NOS: ; SOFTWARE: FABLSEQ for ; SEQ ID NO 250	; LENCH: 11/9 ; TYPE: PRT ; ORCANISM: Homo Bapier US-10-474-794-250	Query Match Best Local Similarity Matches 345; Conserva	Qy 1 FNLDTENAMTE	Qy 57 CEP-IRLQVPY   ::  :  Db 89 SLPCVKLDLPY	Qy 107 CFLFGSNLRQC   Db 148 CSDVSPTFQV	Qy 167SKTLI :   Db 199 RMDIGPKQTQ	Oy 220 RELFNITNGA               Db 259 KEAFTEARGA	Qy 277 SEKSRQELI       :   Db 318 LSTEKFVEEII	Oy 335 SQEGFSAAIT:             :   Db 378 SQTGFSAHYS:	Qy 389 GYAAAIILRN	Db 437 GYTVNSATAS:	QY 448 VDVDSNGSTDI 	Oy 492 AVLYGEOGOP
::  :	107 CFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLK- 165	166 -KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGR-THTATGLRKVVRELF 223	224 NITNGARKNAFKILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSE 278	279 KSRQELNTVASKPPRDHVPOINNFEALKTIQNQLREKIFAIEGTOTGSSSSFEHEMSQEG 338	339 FSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTF-INWTRVDSDMNDAYLGYAA 392           : : :               : : :             354   354 FSAHYSQDWVMLGAVGAYDWNGTVVMQKASQIIIPRNTTFNVESTKKNEPL-ASYLGYTV 412	393 AIILRNRVQSL-VLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVD 451 	452 SNGSTDLVLIGAPHYYEQTR-GGQVSVCPLPRGQRARWQCDAVLY 495	496 GEQGQPWG-RFGAALTVLGDVNGDKLTDVAIGAFGEEDNRGAVYLFHGTSGSGISPSHSQ 554 ::            ::           ::	555 RIAGSKLSPRLQYFGQSLSGGQDLTWDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPR 614	615 EVARNVFECNDQVVKGKEAGEVRVCLHVQ-KSTRDRLREGQIQSVVTYDLALDSGRPH 671	672 SRAVFNETKNSTRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLVGT 725	726 PLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGGPRE- 784   :	785 FNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGAL 844	845 KSTSCSINHPIFPENSEVTFNITFDVDSKASLGN-KLLLKANVTSENNMPRTNKTEFQLE 903 :: :: ::     :::  ::: :: ::: ::: ::: :	904 LPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSL   :		971 KLSISFPNMTSNGYPVLYPTGLSSSENANCRPHIFEDPFSINSGKKMTT 1019	992 HSDFLAELRKAPVVNCSIÅVCQRIQCDIPFFGIQEFNATLK 1033 :	1034 GNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPL 1093
q	у В	è 8	දු පු	ۇ م 10	ý 9	<b>상</b> 원	\$ a	상 임	ò q	상 원	S G	දු පු	S da	\chi_{\text{d}}	<i>≿</i> 8	ò	qq	දු පු	ò

```
44;
RSENASLVLSSSN------QKRELAIQISKDGLPGRVPL 1112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ARKONAFKILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFR--- 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SSGDVLYIAGQPRYNHTGQVIIYRMEDGNIKILQTLSGEQIGSYFGSILTT 496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            : ::||:|
IKSIASEPTEKHFFNVSDELALVTIVKTLGERIFALEATADQSAASFEMEM 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TSNGPLLSTVGSYDWAGGVFLYTSKE-----KSTF-INMTRVDSDMNDAYL 388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |::|:|| | | : | : : : | : DILLVGAPMYMGTEKEEQGKVYVYALNQTRFEYQMSLEPIKQTCCSSRQHN 556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PWG-RFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISP 550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LNTVASKPPRDHVFQINNFEALKTIONOLREKIFAIEGTOTGSSSFEHEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LESLMOYSEEFRIHFTFKEFONNPNPRSLIKPITOLLGR-THTATGLRKVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NRVQSL-VLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DLVLIGAPHY-----YEQTR-GGQVSVCPLPRGORARWQCD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PVEA------VNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             )QPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FFQENARG-FGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQCDYSTGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels 203; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18.6%; Score 1093.5; DB 6; Length 1179; 27.8%; Pred. No. 1.4e-55; vative 206; Mismatches 487; Indels 203;
                                                                                                                                                                                      lter, Eleanor
x, Brad
in, Bert
Kenneth
ENDOTHELIAL CELL EXPRESSION PATTERNS
                                                      ||||| |: ||:|:||||| | :
|SLLLLMLLILALWKIGFFKRPLKKKMEK 1149
                                  SLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                7.00179
NUMBER: US/10/474,794
: 2003-10-14
UMBER: 60/282,850
2001-04-11
UMBER: 60/308,829
                                                                                                                                                                                                                                                                                                                                                                                                         : 359
r Windows Version 4.0
                                                                                                                                                         ion US/10474794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ans
```

Matches 346; Conservative 196; Mismatches 475; Indels 246; Gaps 48;	1 FNLDTENAMTFOENARG-FGOSVVOLOGSRVVVGAPOEIVAANORGSLYOCDYSTGS 5		OY 57 CEP-IRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGL 106   57 CEP-IRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGL 106   99 AMPCVKLDLPVNTSIPNVTEIKENMTFGSTL-VTNPNGGFLACGPLYAYRCGHLHYTTGI 147	QY 107 CFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQ 163	Qy 164 LKKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLG-RTHTATGLRK 217	Qy 218 VVRELFNITNGARKNAFKILFLLTDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFR- 276	Qy 277SEKSRQELNTVASKPPRDHVPQINNFEALKTIQNQLREKIPAIBGTQTGSSSSFEH 332	QY 333 EMSQEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAY 387	Qy 388 LGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYPGASLCS 447	Qy 448 VDVDSNGSTDLVLIGAPHYYEQTR-GGQVSVCPLPRGQRARWQCD 491	Qy 492 AVLYGEQGOPWG-RFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISP 550 : :	Qy 551 SHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIME 610   ::	Qy 611 FNPREVARNVFECNDQVVKGKEAGEVRVCLHVQ-KSTRDRLREGQIQSVVTYDLALDS 667	GGB GRPHSRAVPNETKNSTRRQTQVLGLTQTCETLKLQLPNCIBDPVS 712	713 PILALMESLYGPPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFM	Qy 773 SLDCLVVGGPRE-FNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLA 831	OY 832 CESASSTEVSGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLL-LKANVTSEN 890	891	940 YOVSNLGQRSLPISLVFLVPVRLNQTVIMD	:   :  :
Db 557 SCTTENKNEPCGARFGTAIAAVKDLMLDGFNDIVIGAPLEDDHGGAVYIYHG-SGKTIRK 615	Ov 551 SHSORIAGSKISPRLOYFGOSISGGODITMDGLVDLTVGAOGHVILLRSOPVIRVKAIME 610	616 EYAQRIPSGGDGKTLKFFGGSIHGEMDLNGDGLTDVTIGGLGGAALFWSRDVAVVKVTMN	OY 611 FNPREVARNVFECNDQVVKGKEAGEVRVCLHVQ-KSTRDRLREGQIQSVVTYDLALDS 667	OY 668 GRPHSRAVFNETKNSTRROTOVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFS 721	Qy 722 LVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGG 781  Db 781 LT-DPENGPVLDDSLPNSVHEYIPFAKDCGNKEKCISDLSLHVATTEXDLLIVRS 834	Qy 782 PRE-FNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV 840  B35 QNDKFNVSLTVKNYRDSAYNTRTIVHYSPNLVFSGIEAIQKDSCESN 881	Qy 841 SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGN-KLLLKANVTSENNMPRTNKTE 899  1	OY 900 FQLELPVKYAVYAVYTHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRS 949  1	Qy 950LPISLVF LVPVRLNQTVIMDRPQVTFSENLSSTCHTKE 987	Qy 988 RLPSHSDFLAELRKAPVVNČSIAVCQRIQCDIPFFGIQEFFN 1029   :: :     ::	QY 1030 ATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPN 1089	OY 1090 PLPLIVGSSVGGLLLIALITAALYKLGFFKRQYKDMMSE 1128 	ES-S	; Sequence 307, Application US/10474794; ; GENERAL INFORMATION: ; APPLICANT: Carson-Walter, Eleanor Applicant: cr. Cr. Prof. Read	APPLICANT: Vogelstein, Bert APPLICANT: Kinzler, Kenneth TITLE OF INVENTION: ENDOTHELIAL CELL EXPRESSION PATTERNS FILE REFERENCE: 1107.00179	; CURRENT'APPLICATION NUMBER: US/10/474,794 ; CURRENT FILING DATE: 2003-10-14 ; PRIOR APPLICATION NUMBER: 60/202,850 ; PRIOR FILING DATE: 2001-04-11	; PRIOR APPLICATION NUMBER: 60/308,829 ; PRIOR FILING DATE: 2001-08-01 ; NUMBER OF SEQ ID NOS: 359 ; SOFTWARE: FastSEQ for Windows Version 4.0		-307	Query Match 17.9%; Score 1055; DB 6; Length 1180; Best Local Similarity 27.4%; Pred. No. 2.3e-53;

È	<u>අ</u> (	S &	È	đ	ò	셤	ò	a	È	qq	ò	a	ò	đ	δ	g	ò	q	<b>ል</b> 8 ବ	පි සි	<b>8</b>		δ	<del>a</del>	Sec	5					
972QVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQ 1016	1040 INSGKRWTISKSEVLKRGTIQDCSSTCGVATITCSLLPSDLSQ 1082	1017 CDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTABILFNDSVFTLL 1067	VNVSLLLMKPTF-IRAHFSSLNLTLRGELKSENSSLTLSSSN 112		1124RNKELMIQISANGLPGKVPLMVILLSAFAGLLLLMLLLLMLMKIGFFNKPLMKN.	TIZO MOE	11.0 MEN 1100	SULT 15	-bu-493-189-8 Sequence 8. Application US/60493369 CENEDAL INFORMATION	SERVICED INFORMATION.  PER DOMON  A PRI TANAME DAMON	AFFLICANT: JOO RE APPLICANT: AIGN LI APPLICANT: AIGN LI	AFFLICANT: AIGOLOUIG CHANG APPLICANT: KATEN KETCUM ADDI-[CANT: 1an McCAEFERV	TITLE OF INVENTION. PARCEATIC DISEASES TARGETS AND USE	FILE REFERENCE: CLO01476 CHDDENN's ADDI-ICATION NIMBED 118/60/403 360	ILING DATE: 2003-08-08	NUMBER OF SEQ ID NOS: 440 SEOTHARE: FastSEQ for Windows Version 4.0	SEC 15 NO 9 LENGTH: 1179 ENGINE : 1179	ORGANISM: Homo sapiens S-60-493-369-8	Ouery Match Best Local Similarity 26.7%; Pred. No. 2.6e-53; Matches 326; Conservative 219; Mismatches 494; Indels 182; Gaps 44;	1 FNLDTENAMTFQ-ENARGEGGSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYST 54	30 YNVGLPEAKIFSGPSSEOFGYAVQOFINPKGNW	55 GSCEPIRLOVPVEAVMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLC 107	108 FLPGSNLRQOPOKFPEALRGCPOEDSDIAFLIDGSGSIJPHDFRRMKEWVSTVMEQLK	150 SDISPDF-QLSASFSPATQPCPSL-IDVVVVCDESNSIYPWDAVRNFLEKFVQGLDIG	166 KSKTLFSLMQYSEBFRIHFTFKEFQNNPNPRSLIKPITQLLG-RTHTATGLRKVVRELFN 224	206 PIKTOVGLIQYANNPR	225 ITNGARKNAFKILFLLTDGEKFGDFLGYEDVIPELDREGVIRVIGVGDAFRSEK :     :     :     :   :   :   :   :	266	280 SRQELNTVASKPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGF 339	.340 SAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMN-DAYLGYAAAI	384 SADYSSQNDILMLGAVGARGWSGTIVQKTISHGHLIFPKQAFDQILQDKNHSSYLGYSVAA 443
õ	පු	ò	g	8 8	5 6	<b>3</b> 2	3	Ξ:	j									· · · Ď		ò	g	કે દ	3 8	g	ò	ద	ò	g	\$ B	8	9

```
1045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  997
                                                                                                                                                                                                                                                                                                                                                                                                                    880
                                                                                                                                                                                                                     772
                                                                                                                                                                                                                                                                                                                                   739 EDAQRLFTALFPFEKNCGNDNICQDDLSITF----SFMSLDCLVVGGPREFNVTVTRND 794
                                                                                                                                                                                                                                                                                                                                                              832
                                                                                                                                                                                                                                                                                                                                                                                          853
 448
                                                     506
                                                                                                           AALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSORIAGS--KLSPR 564
                                                                                                                                   614
                                                                                                                                                                624
                                                                                                                                                                                          672
                                                                                                                                                                                                                                                                             681 NSTRRQTQVLGLTQTC--ETLKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLA 738
                                                                                                                                                                                                                                                                                                                                                     :| : : | :: : | :: | TI-RSTNINFYEISSDGNVPSIV-HSFEDVGPKFIFSLKVGSVPVSMATVIIHIPQYTKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               993 SDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEFNATLKGNLSFDWYIKTSHNHLLIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1046 ------LNCRTASCSNVTCWLKDVHMKGEYFVNVTTRIWNGTFASSTFQTVQLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      914 VTSHGVSTKYLNFTASENTSRVMQHQYQ-----VSNLGQRSLPISLVFLV-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -----PVRLNQTVIWDRPQVTF-SENLSSTCHTKERLPSH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1053 STAEI-LFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNP----LP--LIVGSSVGGLLL
                                                                                                                                                                                                                                                                                                                                                                                          795 GEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASST-EVSGALKSTSCSINH
                                                     DVDSNGSTDLVLIGAPHYYEQTR - - GGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFG
                                                                                                                           ILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANV-----KGTQIGAYFGASLCSV
                                                                                                                                                                LOYFGOSLSGGODLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    completed: November 25, 2003, 14:38:49
ne : 17.9635 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1105 LALITAALYKLGFFKRQYKDM 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1144
                                                                                                           507
                                                                                                                                        556
                                                                                                                                                                  565
                                                                                                                                                                                                                                                                                                         722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             959
                                                                                 499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     earch cor
```

Sequence Sequence 3

Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence

```
1 FNLDTENAMTFQENARGFGQSVVQLQGŞRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 1; Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: Gallatin, W. Michael
APPLICANT: Van Der Vieren, Monica
TITLE OF INVENTION: No. 5437958el Human 2 Integrin Alpha
TITLE OF INVENTION: Subunit
NUMBER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/173,497
          US-08-482-293A-2
US-08-943-363-2
US-08-618-307A-2
US-08-618-307A-2
US-08-618-99
US-08-618-99
US-08-913-99
US-09-193-043-99
US-09-193-043-55
US-08-193-043-55
US-08-485-618-55
US-08-485-618-55
US-08-485-618-55
US-08-485-618-55
US-08-618-55
US-08-618-55
US-08-618-55
US-08-618-55
US-08-618-55
US-08-618-55
US-08-618-55
US-08-618-55
US-08-618-55
US-08-618-55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Marshall, O'Toole, Gerstein, STREET: 213 S. Wacker Drive, 6100 Sears CITY: Chicago STATE: 111inois COUNTRY: USA ZIP: 60606-6402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 99.5%; Score 5852; D
Best Local Similarity 99.2%; Pred. No. 0;
Matches 1128; Conservative 7; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: No. 5437958and, Greta E.
REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 27866/31363
TELECHONE: 312-474-6300
TELEFRAX: 312-474-6448
                                                                                                                                                                                                                                                                                                                                            ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 3, Application US/08173497
Patent No. 5437958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1153 amino acids
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-173-497-3
                                                                                                                                                                                                                                                                                                                                                                                                             US-08-173-497-3
                                                                               3385.5
33865.5
33865.5
33865.5
332865.5
3224.5
3217.5
3217.5
3217.5
3217.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CENGTH:
               3401
3401
3401
3401
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Appl
                                                                                                                 ; Search time 13.5618 Seconds (without alignments) 3547.268 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                      5884
1 FNLDTENAMTFQENARGFGQ......FKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 4.
Sequence 44
Sequence 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 3
Sequence 3
Sequence 3
Sequence 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Issued Patents AA:*

1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*

3: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*

4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*

4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*

5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*

6: /cgn2_6/ptodata/1/iaa/PcTUS_COMB.pep:*
                 GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-485-618-3
US-08-652-3
US-08-652-3
US-08-943-33-3
US-08-943-38-3
US-09-193-043-3
US-09-193-043-3
US-09-476-062A-43
PCT-US96-01314-43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-173-497-4
US-08-186-889-4
US-08-485-618-4
US-08-362-622-4
US-08-605-672-4
US-08-943-293A-4
US-09-193-043-4
US-09-193-043-4
US-09-193-043-4
US-09-193-043-4
US-09-193-043-4
US-08-178-407-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5424399-2
US-08-476-062A-44
PCT-US96-01314-44
                                                                                                                                                                                                                                                                                                                                          Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-485-618-2
US-08-362-652-2
                                                                                                                                                                                                                                                                                                          328717 segs, 42310858 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                     November 25, 2003, 14:13:09
                                                                                   - protein search, using sw model
                                                                                                                                                                                                                                                      BLOSUM62
Gapop 10.0 , Gapext
                                                                                                                                                                                                                                                                                                                                                                            Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                     US-09-902-481B-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1153
1153
1153
1153
1153
1153
1152
1163
1163
1163
1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5821.5
5821.5
5821.5
3459
                                                                                                                                                                                                        Perfect score:
                                                                                                                                                                                                                                                        Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3436
3436
3401
3401
401
                                                                                   OM protein
                                                                                                                                                                                                                          Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Database
                                                                                                                     Run on:
```

ö 9

ó

임

8 8 8 8

В

ò

셤

õ

g

ò

g

ò

a

ò

```
TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-286-889-3
       US-08-286-889-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         976
                                                                                                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                                                                                                 616
                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      196
                     136
                                                                                                                                                                                                                           376
                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       856
                                               180
                                                                        196
                                                                                                240
                                                                                                                        256
                                                                                                                                                 TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                          316
                                                                                                                                                                                                  NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                            436
                                                                                                                                                                                                                                                                                                                              496
                                                                                                                                                                                                                                                                                                                                                                               556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HGTSGSGISPSHSQRIAG$KLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       677 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                  NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                      ONTGMWESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                        HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                      PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
RLQVPVBAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
             FPEALRGCPQEDSDIAFLIDGSGSTIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                          RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                              RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKLLVVI
                                                                                                                                                              GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                ONTGMMESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                       PRGORARWOCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                       PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA1GAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1081
                   77
                                                                                                                        197
                                                                                                                                                  241
                                                                                                                                                                          257
                                                                                                                                                                                                  301
                                                                                                                                                                                                                            317
                                                                                                                                                                                                                                                                             377
                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                               437
                                                                                                                                                                                                                                                                                                                                                                                497
                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                 557
                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           716
                                                121
                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                        481
61
                                                                                                 181
```

a

ઠે

g

ò

g

ద

8

ò

8 6 8 6 8 6 8

õ

q

õ

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NFEALKTIONOLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RIHFTFKEFONNPNPRSLIKPITOLLGRIHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOGEKFGDPLGYEDVI PEADREGVIRYVI GVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17 FNLDTENAMTFQENARGFGGSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                               Subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1153;
                                                                              2 Integrin Alpha
                                                                                                                           Borun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                          oole, Gerstein, Murray
Drive, 6300 Sear Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
                                                                                                                                                 CITY: 1110018
COUNTY: United States
COUNTY: United States
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM FC compatible
OFERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.
CURRENT APPLICATION NUMBER: US/08/286,889
FILING DATE:
                                                                                                                                                                                                                                                                               #
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB
                                                                                                                                                                                                                                                                                                                         Query Match
99.5%; Score 5852; D
Best Local Similarity 99.2%; Pred. No. 0;
Matches 1128; Conservative 7; Mismatches
                                                                               Human
Sequence 3, Application US/08286889
Patent No. 5470953
GENERAL INFORMATION:
APPLICANT: Gallatin, W. Mich
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. 5470953e1 Hun
WUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gers!
                                                                                                                        ADDRESSEE: Marshall, O'Toole,
STREET: 233 South Wacker Driv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               linear
```

```
HGTSGSGISPSHSQRIAGSKLSPRLQYPGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRGORARWOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
99.5%; Score 5852; D
Best Local Similarity 99.2%; Pred. No. 0;
Matches 1128; Conservative 7; Mismatches
                                                                                                                                                                                                                   NAME: Williams Jr., Joseph A. REGISTATION NUMBER: 38,659
REFERENCE/DOCKET NUMBER: 2786
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                           TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1153 amino acids
                                                                                                                                                                                                                                                                             TELEPHONE: 312-474-6300
TELEFAX: 312-474-0448
                                                                                                                                                                                                                                                                                                                                                                     TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                             TELEFAX:
TELEX: 29
                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-485-618-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QLELPVKYAVYMVVTSHGVGTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960
                                                                                                                   540
                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                 919
                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                    796
                                                                                                                                                                                                                                                                                                                                                                                                                                              856
                           436
                                                                                                                                                                                                        616
                                                                                                                                                                                                                                                                                                                          736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                     GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                              YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                        ONTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGQOVSVCPL
                                                                                                                                                                                                                                      PULRVKAIMEFNPREVARNVFECNDOVVKGKEAGEVRVCLHVOKSTRDRLREGOIOSVVT
                                                                                                                                                                                                                                                      PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                        ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                   PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                           HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                              YDLALDSGRPHSRAVFNETKWSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                   GPREFNUTUTURNDGEDSYRTQUIFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: Gallatin, W. Michael
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTON: 05728533el Human 2 Integrin Alpha Subunit
NUMBER OF SEQUENCES: 103
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
STREET: 233 South Wacker Drive, 6300 Sear Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 3, Application US/08485618
Patent No. 5728533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE: Illinois
COUNTRY: United States
ZIP: 60606-6402
COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPAtible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 3
US-08-485-618-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1037
                           377
                                                        421
                                                                                     437
                                                                                                                 481
                                                                                                                                           497
                                                                                                                                                                           541
                                                                                                                                                                                                        557
                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                 617
                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                        677
                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                    737
                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                              797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          116
                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 원
상
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Db
                          셤
                                                                                    윱
                                                                                                                                        요
                                                                                                                                                                           ઠે
                                                                                                                                                                                               g
                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ሯ
                                                        ò
                                                                                                               ò
```

77 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 137 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN TDGEKFGDPLGYEDVI PEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN NFEALKTIONQLREKIFALEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR QNTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQOPQK 121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL 17 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI 1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI ö Length 1153; Indels OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/485,618
FILING DATE:
CLASSIFICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US 08/173,497
FILING DATE: 23-DEC-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/286,889
FILING DATE: 5-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/362,652
FILING DATE: 1-DEC-1994
ATTORNEY/AGENT INFORMATION: ; ? 1, 80

ö

120 136 180 196

96

300

ö

ö

9, 9

180 196 240 256 300 360 376 420 436 540 556 600 616 99 676 720 736

us-09-902-481b-4.rai

3

```
QNTGMWESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GPREFNUTVIVRNDGEDSYRIQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            617 PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                497 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCI EDPVSPI VLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TDGEKFGDPLGYEDVI PELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                  1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                    FNLDTENAMTFQENAKGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                      DB 1; Length 1153;
                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                    7
REFERENCE/DOCKET NUMBER: 38,659
REFERENCE/DOCKET NUMBER: 27866/32391
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-474-6300
TELEFRAX: 312-474-6448
TELEFRAX: 25-3856
INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS:
LEMGTH: 1153 amino acids
TYPE: amino acid
STRANDENNESS
                                                                                                                                                                                                                                                     99.5%; Score 5852; D
99.2%; Pred. No. 0;
ive 7; Mismatches
                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 99.2
Matches 1128; Conservative
                                                                                                                                                                                                      MOLECULE TYPE: protein
                                                                                                                                                                                         linear
                                                                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                     US-08-362-652-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   977 RINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FFGIGEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSGTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                 RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                         736
                                                                                                                                                                                                                                                                                                                  SGALKSTSCSINHPIPPENGEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF 900
                                 616
                                                                9
                                                                                            919
                                                                                                                            720
                                                                                                                                                                                         780
                                                                                                                                                                                                         737 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 796
                                                                                                                                                                                                                                                                             797 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTBV 856
                                                                                                                                                                                                                                                                                                                                       SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRINKTEF 916
                                                                                                                                                                                                                                                                                                                                                                                  QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960
                                                                                                                                                                                                                                                                                                                                                                                                     GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KVEPPEVPNPLPLIVGSSVGGLLLLALTAALYKLGFFKRQYKOMMSEGGPPGAEPQ 1137
           677 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDEVSPIVLRLNF
                                                              PVLRVKA IMEFNPREVARNVFBCNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                               PULRVKA I MEFNPREVARNVFECNDOVVKGKEAGEVRVCLHVOKSTRDRLREGOI OSVVT
                                                                                                                            YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNC1EDPVSP1VLRLNF
                                                                                                                                                                                           SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human 2 Integrin Alpha Subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Gallatin, W. Michael
APPLICANT: Gallatin, W. Michael
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. 5766850el Human 2 Integrin /
NUMBER OF SEGUENCES: 93
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Tole, Gerstein, Murray & Bc
STREET: 10110018
COUNTRY: United States
CITY: United States
COUNTRY: United States
COUNTRY: ENDADBLE FORM:
WEDIUM TYPE: POPPY disk
COMPUTER: IBM PC compatible
COMPUTER: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION DATA:
FILING DATEN UNIMBER: US/08/362,652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/173,497
FILING DATE: 23-DEC-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/286,889
FILING DATE: 5-AUG-1994
ATTONNEY/AGENT INFORMATION:
NAME: Williamg Jr., Joseph A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 3, Application US/08362652
Patent No. 5766850
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLÁSSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-362-652-3
                                                                                                                                                                                                                                                                                                                                                                                                                  917
                                                                                            617
                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                     857
                                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1097
                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                             661
                                                                                                                                                                                       721
                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                             ò
                                                                                            셤
                                                                                                                            ò
                                                                                                                                                     ద
                                                                                                                                                                                       ò
                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

780

```
a
                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                        ò
                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                    RLNQTVIWDRPQVTFSENLÄSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                           FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSOTET 1080
                                                                                                                                                                                                           QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960
                                                                                                GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV 856
                                                                                                                                                                                                                                                  SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRINKTEF
                          SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Gallatin, W. Michael
APPLICANT: Gallatin, W. Michael
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. 5817515el Human 2 Integrin Alpha Subunit
NUMBER OF SEQUENCES: 103
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Geretein, Murray & Borun
STREET: 233 South Wacker Drive, 6300 Sear Tower
CITY: Chicago
STATE: 111inois
COUNTRY: United States
ZIP: 60606-6402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUW TYER: FORM:
MEDIUW TYER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/605,672
FILING DATE: 23-DEC-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/173,497
FILING DATE: 31-DEC-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/26,889
FILING DATE: 5-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/36,652
FILING DATE: 1-DEC-1994
ATTORNEY/AGENT INFORMATION:
NAME: Williams JT. JOSEP)
REFERENCE/DOCKET NUMBER: 27866/32684
TELEPHONE: 312-474-6300
TELEPHONE: 312-474-6300
TELEPHONE: 312-474-6306
TELEPHONE: 312-474-0348
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHRARACTERISTICS:
1.FNGTH: 1153 amino acids
                                                                                                                                                                                                                                                                                                                                                   Sequence 3, Application US/08605672
Patent No. 5817515
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; TOPOLOGY: linear;
; MOLECULE TYPE: protein
US-08-605-672-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS:
                                                     857
                                                                                                          917
                                                                                                                                       961
                                                                                                                                                                  716
                                                                                                                                                                                              1021
                                                                                901
                                                                                                                                                                                                                                                                                                                          RESULT 5
                                                                                                                                                                                                                g
                        ò
                                                  8
                                                                              ò
                                                                                                    엄
                                                                                                                                ò
                                                                                                                                                          Q
                                                                                                                                                                                 ∂
                                                                                                                                                                                                                                                 ò
```

```
RINOTVIWDRPQVIFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1036
                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      960
                                                                                                                                120
                                                                                                                                                              136
                                                                                                                                                                                              180
                                                                                                                                                                                                                              196
                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                             376
                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                   9
                                                                                                96
                                                                                                                                                                                                                                                           437 QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                  RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                              TDGEKFGDPLGYEDVI PELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                              TOGEKFGDPLGYEDVIPEADREGVIRYVIGYGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                             NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                              317 NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                      GVFLVTSKEKSTFINMTRVDSDMNDAVLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PVLRVKA I MEFNPREVARNV FECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQ I QSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           797 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SGALKSTSCSINHPIFPENSBVTFNITFDVDSKASLGNKLLLKANVTSBNNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                              PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                 137 FPEALKGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                 1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                   Gaps
                                   .;
o
                                 Indels
                                 2;
   7
   DB
                                7; Mismatches
 Score 5852;
Pred. No. 0;
Query Match
Best Local Similarity 99.2%;
Matches 1128; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          497
                                                                                                                              61
                                                                                                                                                                                              121
                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                              197
                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                               257
                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  961
                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
```

```
RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    977 RLNGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              916
                                                                                                                                                                                                                                                                                                                                                                                                                                                        600
                   196
                                                    240
                                                                                                                    300
                                                                                                                                       257 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 316
                                                                                                                                                                                     360
                                                                                                                                                                                                                    376
                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                     436
                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                       496
                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                       556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   677 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSP1VLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               797 GPREFNVIVIVRNDGEDSYRIQVIFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  317 NFBALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                          HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             557 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
137 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                  RIHFTEKEFONNPNPRSLIKPITQLKGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                        GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                       QNTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                         497 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                   NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                     GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLCAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                       QNTGMMESNANVKGTQIGAYPGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                        PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                    TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-943-363-3
; Sequence 3, Application US/08943363
; Patent No. 5837478
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1097
                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                    181
                                                                                   197
                                                                                                                    241
                                                                                                                                                                                   301
                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                     377
                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                       437
                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               요
                                                  ò
                                                                                 셤
                                                                                                                    ò
                                                                                                                                              셤
                                                                                                                                                                                   δ
                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                   음
                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                    1037 FFGIOEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSQTET 1096
     FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9/
                                                                   KVEPFEVPNPLPLIVGSSYGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                       2 Integrin Alpha Subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ..
0
                                                                                                                                                                                Sequence 3, Application US/08482293A
Fatent No. 5831029
GENERAL INFORMATION:
APPLICANT: Gallatin, W. Michael
APPLICANT: Van der Vieren, Monica
TUTUE OF INVENTION: No. 5831029el Human 2 Integrin Alpha Sui
TUTUES OF SEQUENCE: 103
CORRESPONDENCE ADDRESS:
ADDRESSEE Marshall, O'Toole, Gerstein, Murray & Borun
STREET: 233 South Wacker Drive, 6300 Sear Tower
CITY: Chicago
STREET: United States
COUNTRY: United States
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER REALABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/482,293A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 5852; DB
Pred. No. 0;
7; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/173,497
FILING DATE: 23-DEC-1993
PRIOR APPLICATION UNBER: US 08/286,889
FILING DATE: 5-AUG-1994
FILING DATE: 5-AUG-1994
APPLICATION UNBER: US 08/362,652
FILING DATE: 21-DEC-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27866/32684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Williams Jr., Joseph A. REGISTRATION NUMBER: 38,659
REFERENCE/DOCKET NUMBER: 27866
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-474-6300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 1153 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               312-474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 1128; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                    RESULT 6
US-08-482-293A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-482-293A-3
                                                                   1081
                                                                                                   1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            े
                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                   ò
```

```
US-09-193-043-3
                                                                                                                                                                                                                                                617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1097
                     361
                                           377
                                                                     421
                                                                                             437
                                                                                                                      481
                                                                                                                                              497
                                                                                                                                                                       541
                                                                                                                                                                                              557
                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                  737
                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                   797
                                                                                                                                                                                                                                                                                                                                                                                                                                                     857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       977
                                       셤
                                                                    ઠે
                                                                                      용
                                                                                                                  ઠે
                                                                                                                                          ద
                                                                                                                                                                     ò
                                                                                                                                                                                         셤
                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKWVRELFNITNGARKNAFKILFLL 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTJASKPPRDHVFQVN 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301 NFEALKTIQNQLREKIFAJEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Gallatin, W. Michael
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. 5837478el Human 2 Integrin Alpha Subunit
NUMBER OF SEQUENCES: 114
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
STREET: 233 South Wacker Drive, 6300 Sear Tower
CITY: Chicago
STRATE: Illinois
COUNTRY: United States
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SVVQLQGSRVVVGAPQBIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2; Indels
                                                                                                                                                                COMPUTER: IMP PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/943,363
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99.5%; Score 5852; D
99.2%; Pred. No. 0;
ive 7; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                 27866/32684
                                                                                                                                                                                                                                           CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/173,497
FILING DATE: 23-DEC-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/286,889
FILING DATE: 5-AUG-1994
FILING DATE: 1-DEC-1994
ATTORNEY/AGENT INFORMATION:
NAME: Williams Jr., Joseph A.
RESISTRATION NUMBER: 38,659
RESISTRATION NUMBER: 38,659
RESISTRATION NUMBER: 38,659
                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-474-6300
TELEFAX: 312-474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FNLDTENAMTFQENARGFGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS: LENGTH: 1153 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 99.2
Matches 1128; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-943-363-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
```

```
RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
               436
                                                            480
                                                                                                    496
                                                                                                                                                                                        556
                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                             676
                                                                                                                                                                                                                                                                                                                                                                                                                                               736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                           HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLRSQ
                                                                                                                                                                                                                                                                                                              PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                         YDLALDSGRPHSRAVENETKNSTRRQTOVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                         677 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           917 QLELPVKXAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLFGGGAFVRSQTET
                                                            QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                            PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                              HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Gallatin, Michael W.
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. 6251395el Human 2
FILE REFERENCE: 27866/35004
CURRENT APPLICATION NUMBER: U$/09/193,043
CURRENT FILING DATE: 1998-11-16
EARLIER APPLICATION NUMBER: 08/173,497
EARLIER FILING DATE: 1993-12-23
EARLIER FILING DATE: 1994-08-05
EARLIER FILING DATE: 1994-08-05
EARLIER FILING DATE: 1997-10-03
EARLIER FILING DATE: 1997-10-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 3, Application US/09193043
Patent No. 6251395
GENERAL INFORMATION:
```

```
NFEALKTIONOLREKIFAIEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG 360
4
                                                                                                                                                                                                                                                                    GENERAL INVENTATION,

GENERAL INVENTATION,

APPLICANT: Gallatin,

APPLICANT: Van der Vieren, Monica

TITLE OF INVENTION No. 6432404el Human Beta-2

FILE REFERENCE: 27866/36646

CURRENT APPLICATION NUMBER: US/09/688,307A

CURRENT FILING DATE: 2000-10-13

PRIOR APPLICATION NUMBER: 08/605,672

PRIOR FILING DATE: 1998-11-16

PRIOR FILING DATE: 1998-11-16

PRIOR FILING DATE: 1994-12-23

PRIOR FILING DATE: 1994-12-23

PRIOR FILING DATE: 1994-12-21

PRIOR FILING DATE: 1994-12-21

PRIOR FILING DATE: 1994-12-21

PRIOR FILING DATE: 1994-12-21

PRIOR FILING DATE: 1994-12-31

PRIOR FILING DATE: 1994-12-31

PRIOR FILING DATE: 1994-12-31

PRIOR FILING DATE: 1994-12-31

NUMBER OF SEQ ID NOS: 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 5852; DB
Pred. No. 0;
7; Mismatches
                                                                                                                                                                                                                                   Sequence 3, Application US/09688307A Patent No. 6432404 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 99.2'
Matches 1128; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-688-307A-3
                                                                                                                                                                     1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                             셤
                                                                                                             8
                                                                                                                                         ઠે
                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                ઠે
                                                                                         δ
                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                                                                                                                                                                                                                       196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      856
                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          556
                                                                                                                                                                                                                          77 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 136
                                                                                                                                                                                                                                                                                                                  RIHFTFKEFONNPNPRSLIKPITOLLGRIHTATGLRKVVRELFNITNGARKNAFKILFLL 240
                                                                                                                                                                                                                                                                                                                                            256
                                                                                                                                                                                                                                                                                                                                                                      TDGEKFGDPLGYEDVIPELDRECVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                              316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GVFLYTSKEKSTFINMTRYDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ONTGMWESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNI CQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GPREFNVTVTVRNDGEDSYRTQVTFFFDLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GPREFNVTVTVRNDGEDSYRTQVTFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PULRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         YDLALDSGRPHSRAVFNETKWSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTGCTLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                      FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                              RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                               137 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                  RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILVVI
                                                                                                                                                                                                                                                                                                                                                                                     TOGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELMTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                            FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                  Gaps
                                                                                                                                  ő
                                                                                                         Length 1153;
                                                                                                                                  Indela
                                                                                                                                  2;
                                                                                                         .
.
                                                                                                         DB
                                                                                                                                  7; Mismatches
                                                                                                        Ouery Match
Best Local Similarity 99.2%; Pred. No. 0;
Matches 1128; Conservative 7; Mismatche
 NUMBER OF SEQ ID NOS: 114
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 3
LENGH: 1153
TYPE: PRT
ORGANISM: Homo sapiens
                                                                             US-09-193-043-3
                                                                                                                                                                                                                                                                                                                                             197
                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                     11
                                                                                                                                                                                                                                                                                                                                                                                                 257
                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                  317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                 g
                                                                                                                                                                                                                               임
                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                            ò
                                                                                                                                                                                                            ò
```

ö 120 136 180 196 RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL 240 976 9 92 61 RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 17 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI 77 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRWKEFVSTVMEQLKKSKTLFSLMQYSEBF 1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI Gape ő Length 1153; Indels

```
TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAPRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17 FNLDTENAMTFQENARGFGGSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  77 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FPEALRGCPQEDSD1AFL1DGSGS11PHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NFEALKTIQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   317 NFBALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QNTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRG-RARWCCDAVLYGEQGPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 RLQVPVBAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1152;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4
COMPUTER: IBM Compatible
OPERATING SYSTEM: Windows95
SOFTWARE: FastSEG for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/476,062A
FILING APPLICATION DATA:
APPLICATION NUMBER: 08/216,081
FILING DATE: 11-MAR-1994
APPLICATION NUMBER: 07/637,830
FILING DATE: 04-JAN-1991
APPLICATION NUMBER: 07/539,842
FILING DATE: 18-JUN-1990
APPLICATION NUMBER: 07/212,573
FILING DATE: 28-JUN-1990
APPLICATION NUMBER: 07/212,573
FILING DATE: 28-JUN-1986
ATTORNEY,AGENT INFORMATION:
NAME: Freeman, John W.
REGISTRATION NUMBER: 29,066
REFERENCE/DOCKET NUMBER: 29,066
REFERENCE/DOCKET NUMBER: 29,066
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617/542-8006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 5821.5;
Pred. No. 0;
7; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98.9%;
98.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                               : 1152 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 98.9
Matches 1125; Conservative
                                                                                                                                                                                                                                                                                                                                                                                         TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE: protein FRAGMENT TYPE: internal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-476-062A-43
                                                                                                                                                                                                                                                                                                                                                                          TELEFAX:
TELEX: 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QLELPVKYAVYMVVTSHGVŞTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 976
                                                                                                                                              496
                                                                                                                                                                              PRGQRARWQCDAVLYGEQGQPWGRPGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF 540
                                                                                                                                                                                                                                                                      617 PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT 676
                                                                                                                                                                                                                                                                                                                                                                                                                677 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF 736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 796
   317 NFEALKTIQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KVEPFEVPNPLPLIVGSSVÅGLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1097 KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPO 1153
                                                                                                                               QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                            GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              657 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                           ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGQVSVCPL
                                                                                                                                                                                                                                                                                                                     PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                            YDLALDSGRPHSRAVFNETKWSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                        GVFLYTSKEKSTFINMTRVD$DMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                    HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-476-062A-43

Sequence 43, Application US/08476062A

Sequence 43, Application US/08476062A

Sequence 43, Application US/08476062A

Setent No. 5877275

TILEOR INVENTION: CONTROLLING CELLULAR IMMUNE/INFLAMMATORY

TILLE OF INVENTION: RESPONSES WITH BETAZ INTEGRINS

NUMBER OF SEQUENCES: 53

CORRESPONDENCE ADDRESS:

ADDRESSEE: Fish & Richardson P.C.

STREET: 225 Franklin Street

COUNTRY: NA

STATE: MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1081
                                                                                                                                                                                                          497
                                                                                                                                                                                                                                                                                    557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              917
                                        361
                                                                        377
                                                                                                           121
                                                                                                                                            437
                                                                                                                                                                                481
                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                            S G
                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                    a
                                                                                                                                                                       õ
                                                                                                                                                                                                      Q
                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                   9 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                    ò
                                                                       8
                                                                                                         ઠે
                                                                                                                                                                                                                                       ठे
```

120 136 180 196

96

Gaps 1,

```
197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      736
                                                                                                                                                                                                                                                               11
                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                              -1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              윰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        976 RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        795
                                                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                                                                                                                                                                                             975
                                                                                      675
                                                                                                                         720
                                                                                                                                                          735
                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                     855
                                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                                       915
                                                                                                                                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                       SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                               GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                     SCALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                          856 SGALKSISCSINHPIPPENSEVIFNITFDVDSKASLGNKLLLKANVISENNMPRINKTEF
                                                                                                                                                                                                                                                                                                                                                                                                          QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                              916 QLELPVKYAVYMVVTSHGVŞTKYLNFTASENTSRVMQHQYQVSNLGQRSPPISLVFLVPV
                                                       PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IDENTIFYING INTEGRIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 43, Application PC/TUS9601314
Sequence 43, Application PC/TUS9601314
GENERAL INFORMATION:
APPLICANT: M. Amin Arnaout
TITLE OF INVENTION: METHODS, FOR IDENTIFY
TITLE OF INVENTION: ANTAGONISTS
NUMBER OF SEQUENCES: 78
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
STREET: 225 Franklin Street
COUNTY: U.S.A.
ZIP: Massachusetts
CONTYRY: U.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M.S.A.
ZIP: M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: John W. Freeman
REGISTRATION NUMBER: 29,066
REFERENCE/DOCKET NUMBER: 00786/267001
TELECOMMUNITATION INFORMATION:
TELEFHONE: (617) 542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PCT-US96-01314-43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                       964
                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                       601
                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                           8 8 8
                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                  q
                                                                                                                         ò
                                                                                                                                                          임
                                                                                                                                                                                     ò
```

```
240
                                                                                                                                                                                                                                                                                                                                                               256
                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                  316
                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             915
                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                          196
                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                      136
                                                                                                                                                                          9
                                                                                                                                                                                                96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             317 NFBALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NFEALKTIONOLREKIFALEGTOTGSSSSFEHEMSQEGFSAALTSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                    TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSROELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                      61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                            121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                               FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                      RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                          FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                               Gaps
                                                                                                                                                ;;
                                                                                                                      Length 1152
                                                                                                                                               Indela
                                                                                                                      5.
                                                                                                                                                4
                                                                                                                      DB
                                                                                                                   Score 5821.5;
Pred. No. 0;
7; Mismatches
                                                                                                                      98.94;
TELEX: 200154
; INFORMATION FOR SEQ ID NO: 4
; SEQUENCE CHARACTERISTICS: ; LENGTH: 1152
; TYPE: amino acid STRANDEDNESS: ; TOPOLICS: linear PCT-US96-01314-43
                                                                                                                      Query Match
Best Local Similarity 98.9
Matches 1125; Conservative
```

g ò g ઠે g ò 셤

```
1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             976 RINQIVIMDRPQVIPSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1080
                                                                                          615
                                                                                                                                         999
                                                                                                                                                                                     675
                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                   735
                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                           795
                                                                                                                                                                                                                                                                                                                                                                                                                            840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   975
  555
                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        916 QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSPPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1036 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
                                                                                                                                                                  SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GPRESNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  856 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  961 RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
                                              HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                            HITTELL HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN HELDEN H
                                                                                                                                         PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                            GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
PRG-RARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 08/216,081
FILING DATE: 21.MAR-1994
APPLICATION NUMBER: 07/637,830
FILING DATE: 04-JAN-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 04-JAN-1991
APPLICATION NUMBER: 07/539,842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 13
US-08-476-062A-44
                                                                                                                                                                                                                                                                                                                                                                              736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1021
                                              541
                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                            셤
                                                                                                                                                                                                                               È
                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                   ద
                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                         ઠે
                                                                                                                        RINOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1035
                                                                                                                                                                                                                RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                        FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ۲,
                                              975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRGQRARWQCDAVLYGEQ¢QPWGRFGAALTVLGDVNGDKLTDVA1CAPGEEDNRGAVYLF 540
  QLELPVKYAVYMVVTSHGV$TKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ONTEMWESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             76
                                                                                                                                                                                                                                                                                     KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                              KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            916 QLELPVKYAVYMVVTSHGVŞTKYLNFTASENTSRVMQHQYQVSNLGQRSPPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLXQCDXSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FPEALRGCPQEDSDIAFLADGSGS11PHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    137 FPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NFEALKTIQNQLREKIFA I EGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QNTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RIHFTFKEFONNPNPRSLIKPITOLLGRIHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 1152;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4 ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: ARNAOUT, M. AMIN
TITLE OF INVENTION: HUMAN CRBA/D HETERODIMERS
NUMBER OF SEQUENCES: 12
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/78,871
FILING DATE: 16-JUN-1993
PRION: APPLICATION DATA:
APPLICATION NUMBER: 539,842
FILING DATE: 28-JUN-1990
APPLICATION NUMBER: 212,573
FILING DATE: 28-JUN-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 98.9%; Pred. No. 0;
Matches 1125; Conservative 7; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; LENGTH: 1152
5424399-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; Patent No. 5424399
                                                                                                                                         9.26
                                                                                                                                                                                        1021
                                                                                                                                                                                                                                       1036
                                                                                                                                                                                                                                                                                     1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   437
                                                                                             961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO:2
```

ò g ò d ò g ò Q ò q ò q ò g ò g ò

1019 1034

900 914 959

854

```
915 QLELPVKYAVYTVVSSHEQFTKYLNFSESEEKESHVAMHRYQVNNLGQRDLPVSINFWVP 974
                                                                                                                                                                                                                                                  PPFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTABILFNDSVFTLLPGQGAFVRSQTE
13.7 TLVGKPLLAFRNLRPMLAALAQRYFTASLPFEKNCGADHICQDNLGISFSFPGLKSLLVG
                              181 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                   901 QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                960 VRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                   841 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                 1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                  Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: M. Amin Arnaout
TITLE OF INVENTION: METHODS FOR IDENTIFYING INTEGRIN
TITLE OF INVENTION: MATHGONISTS
NUMBER OF SEQUENCES: 78
CORRESPONDENCE ADDRESSE: Fish & Richardson P.C.
STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 58.8%; Score 3459; DB 5; Best Local Similarity 60.9%; Pred. No. 1.1e-289; Matches 687; Conservative 142; Mismatches 294;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: U.S.A.

ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
COMPUTER: IBM FS/2 Model 502 or 55SX
COMPUTER: IBM FS/2 Model 502 or 55SX
COPETATING SYSTEM: MS-DOS (Version 5.0)
SOFTWARE: WordPerfect (Version 5.1)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US96/01314
FILING DATE: 30-JAM-96
PRIOR APPLICATION NUMBER: 08/380,167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 29,066
REFERENCE/DOCKET NUMBER: 00786/267001
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                PCT-US96-01314-44; Sequence 44, Application PC/TUS9601314; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE: (617) 542-5070
TELEFAX: (617) 542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 30-JAN-95
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 John W. Freeman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Boston
STATE: Massach
COUNTRY: U.S.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PCT-US96-01314-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                1095
                                                                                                                                                                                                                                                                                                  1020
                                                                  797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME:
                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                               요
                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                           유
                                                             셤
                                                                                                ઠે
                                                                                                                               셤
                                                                                                                                                                 ò
                                                                                                                                                                                                                                  ઠે
                                  ኔ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SLVGTPLSAPGNLRPVLAEDAQRLFTALFPPEKNCGNDNICQDDLSITFSFMSLDCLVVG 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181 RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     258 TDGKKEGDSLDYKDVIPMADAAGIIRYAIGVGLAFQNRNSWKELNDIASKPSQEHIFKVE 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661 YDLALDSGRPHSRAVFNETKNSTRROTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 FNLDTENAMIFQENARGFGÓSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                       20 FNLDTEELTAFRVDSAGFGDSVVQYANSWVVVGAPQKITAAANQTGGLYQCGYSTGACEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80 GLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGFT--QLTQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NFEALKTIQNQLREKIFA1EGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                     Length 1163;
                                                                                                                                                                                                                                                                                                                   Ouery Match 58.8%; Score 3459; DB 2; Length 1 Best Local Similarity 60.9%; Pred. No. 1.1e-289; Matches 687; Conservative 142; Mismatches 294; Indels
                                                                                                       00786/068003
   FILING DATE: 18-JUN-1990
APPLICATION NUMBER: 07/212,573
FILING DATE: 28-JUN-1988
ATTORNEY/AGENT INFORMATION:
                                                                  NAME: Freeman, John W.
REGISTRATION NUMBER: 29,066
REFENCE/DOCKET NUMBER: 007
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617/542-8906
                                                                                                                             TELEFAX: 61,/
TELERX: 20154
INFORMATION FOR SEQ ID NO: 44:
SEQUENCE CHARACTERISTICS:
LENGTH: 1163 amino acids
                                                                                    29,066
                                                                                                                                                                                                                                                                   MOLECULE TYPE: protein US-08-476-062A-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

Gaps

```
STREET: 233 S.
CITY: Chicago
STATE: Illinois
COUNTRY: USA
                                           RESULT 15
US-08-173-497-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-173-497-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
            유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                        GLQVPPEAVNMSLGLSLASTISPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR 137
                                                                                                GAFLYPPNMSPTFINMSQENVDMRDSYLGYSTELALMKGVQSLVLGAPRYQHTGKAVIFT 437
                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                              497
                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                   616
                                                                                                                                                                                                                                                                                                                                                                                                                                          99
                                                                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TLVGKPLLAFRNLRPMLAALAQRYFTASLPFEKNCGADHICQDNLGISFSFPGLKSLLVG 796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              959
                                                                                     FPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                            TDGEKFGDPLGYEDVIPELDREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                    NFEALKTIONOLREKIFALEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               854
                     79
                                                                                                                                                                                                                                                                                                                                                                                                            HGVLGPSISPSHSQRIAGSQLSSRLQYFGQALSGGGDLTQDGLVDLAVGARGQVLLLRTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QLELPVKYAVYTVVSSHEQFTKYLNFSESEEKESHVAMHRYQVNNLGQRDLPVSINFWVP
             FNLDTEELTAFRVDSAGFGDSVVQYANSWVVVGAPQKITAANQTGGLYQCGYSTGACEPI
                                                                                                                                 RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                       661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QLELPVKYAVYMVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                           RLOVPVBAVNMSLGLSLAATITSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                          QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                    PRGORARWOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                              HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                         PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GPREFNVTVTVTVTRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEGGKOGOLRSLHLTCDSAPVG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                     20
                                                                                     121
                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                             138
                                                                                                                                                                                                                                                                                                                                                                           498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   915
                                           61
                                                                                                                                                                          241
                                                                                                                                                                                              258
                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                         318
                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                    3.78
                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                   557
                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            975
                                                                                                                                                                                                                                                      6666
                                                                                                                                                                                                                                                                                                                                             8 6 8 6
                    硆
                                                             던
                                                                                  ò
                                                                                                      셤
                                                                                                                               ò
                                                                                                                                              g
                                                                                                                                                                   ò
                                                                                                                                                                                           g
                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                    8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ያ ያ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
ઠે
                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
```

```
NFEALKTIONOLREKIFAIEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20 FNLDTEELTAFRVDSAGFGDSVVQYANSWVVVGAPQKIIAANQIGGLYQCGYSTGACEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEWVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGLRKVVRELFNITNGARKNAFKILFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
;
9
                                                                                                                                                                                                                                                                           2 Integrin Alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/NS-DOS
SOFTWARE: PatentIn Release #1.0, Vergion #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/173,497
FLING DATE:
CLASSIFICATION: 435
                                                                                                                                                                                                                   APPLICANT: Gallatin, W. Michael
APPLICANT: Gallatin, W. Michael
APPLICANT: Van Der Vieren, Monica
TITLE OF INVENTION: No. 5437958el Human 2 Integr
TITLE OF INVENTION: Subunit
NUMBER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
ADDRESSEE: MATSHABIL, O'Toole, Gerstein, Murray
STREET: 233 S. Wacker Drive, 6300 Sears Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 58.4%; Score 3436; DB 1; Best Local Similarity 60.6%; Pred. No. 1.1e-287; Matches 684; Conservative 148; Mismatches 291;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY AGENT INFORMATION:
NAME: No. 5437958and, Greta E.
REGISTRATION NUMBER: 35,302
REFERNCE/DOCKET NUMBER: 27866/31363
TELECPMUNICATION INFORMATION:
TELEPHONE: 312-474-6300
TELEFAX: 312-474-6488
                                                                                                                                             Sequence 4, Application US/08173497
Patent No. 5437958
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 4.
SEQUENCE CHARACTERISTICS:
LENGTH: 1163 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
```

.

```
1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                           VRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCORIQCDI 1019
                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                         540
                                                                                                                                                           736
                                                                                                                                                                                                                                                                                        781 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV 840
                                                                                                                                                                                                                                                                                                                                                                                  914
                                                                                                                                                                                                                                                                                                                                                                                                      QLELPVKYAVYMVVTSHGVSTKXLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP 959
                                           437
                                                                480
                                                                                    497
                                                                                                                                                  600
                                                                                                                                                                                                                                    YDLALDSGRPHSRAVFNETKASTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF 720
                                                                                                                                                                                                                                                                            SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 780
                                                                                                                                                                                                                                                                                                                                           854
318 DFDALKDIQNQLKEKIFAIEGTETISSSFELEMAQEGFSAVFTPDGPVLGAVGSFTWSG 377
                                                                                                                                                                                                                                                 677 LDLALAPGRISPRAIFQETKORSISRVRVLGLKAHCENFNLLIPSCVEDSVIPIILRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                   915 QLELPVKYAVYIVVSSHEQFTKYLNFSESEEKESHVAMHRYQVNNLGQRDLPVSINFWVP
                                                                                                                                                                                                                                                                                                                                   797 SNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEGQKQGQLRSLHLTC--CSAPVG
                                                                                                                                                                                                                                                                                                                                                                         PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                                                                                                                                              SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                         PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                              HGTSGSGISPSHSQRIAGSKLSPRLQYPGOSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                       GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                    ONTGMWESNANVKGTOIGAYPGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                           PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1095
                                                            421
                                                                                 138
                                                                                                                              498
                                                                                                                                                                      557
                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                  855
                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                                                         191
                                                                                                                                                  541
                                                                                                                                                                                                                                     661
                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                          q
                                                                                                                                                                                                                             8 G
                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                           S B
                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                       g
                                                          ઠ
                                                                             셤
                                                                                                  ठ
                                                                                                                        g
                                                                                                                                                 8 &
                                                                                                                                                                                    ò
```

completed: November 25, 2003, 14:23:17 ne : 17.5618 secs Search co

, 100

30 496 8.4 1394 2 A29637 position-specifi 31 495.5 8.4 1039 2 A34269 integrin alpha-2 32 494 8.4 1137 2 JCS950 integrin alpha-2 33 490.5 8.3 1037 2 A60163 glycoprotein III 34 488 8.3 1135 2 IGI186 alpha-2 35 A66 9.3 1057 2 A60163 alpha-2 integrin	470 8.0 1106 2 538783 467 7.9 1226 2 544824 453 7.7 1045 2 560571 445.5 7.6 1139 2 528277	418.5 7.1 1115 391 6.7 764 309.5 5.3 1086	298.5 5.1 272 2 A55348	ALIGNMENTS	RESULT 1	RWHUIB  cell surface glycoprotein CD11b precursor [validated] - human  N.Alternate names: complement receptor type 3 alpha chain; leukocyte adhes;  eukocyte integrin alpha chain; neutrophil adherence receptor alphaM chain  C;Species: Homo sapiens (man)  C;Species: Homo sapiens (man)  C;Species: Abec-1992 #sequence revision 31-Dec-1992 #text change 31-Dec-2000  C;Angere: Albec-1992 #sequence revision 31-Dec-1992 #text change 31-Dec-2000	Cincession: Allog Account Along Alon	A;Relefence number: A31108; MOLD:88315033; FMLD:245/584 A;Accession: A31108 A;Molecule type: mRNA A;Residues: 1-1153 <cor> A;Cross-references: GB:J03925; NID:g187284; PIDN:AAA59544.1; PID:g307148</cor>	A,Note: part of this sequence was confirmed by protein sequencing R;Arnaout, M.A.; Gupta, S.K.; Pierce, M.W.; Tenen, D.G. J. Cell Biol. 106, 2153-2158, 1988 A;Title: Amino acid sequence of the alpha subunit of human leukocyte adhes: A,Reference number: A28915; MUID:88257215; PMID:2454931	A;Molecule type: mRNA A;Residues: 1-499,501-965,'P',967-1153 <arn> A;Residues: 1-499,501-965,'P',967-1153 <arn> A;Cross-references: GB:MB044, GB:J03270, GB:M19664, GB:X07421, NID:g18693! A;Note: the authors translated the codon TAC for residue 1129 as Thr A;Note: part of this sequence, including the amino end of the mature prote:</arn></arn>	R.Shelley, C.S.; Arnaout, M.A. Proc. Natl. Acad. Sci. U.S.A. 88, 10525-10529, 1991 A,Title: The promoter of the CD11b gene directs myeloid-specific and develo A.Reference number: A41600; MUID:92073318; PMID:1683702 A;Accession: A41600	A, Molecule type: DNA A, Residues: 1-9 <shs. 1-9="" 1988="" 2776-2780,="" 85,="" <shs.="" a,="" acad.="" alpha-submit="" and="" clouning="" cross-references="" d.(="" e.;="" fesidues:="" fitte:="" gb:m76724;="" guinea="" harris,="" human="" let<="" m.a.;="" m.w.;="" molecular="" natl.="" nid:g180018;="" of="" p.;="" pid:g553215="" pidn:aaa58410.1;="" pierce,="" pig="" proc.="" r.arnaout,="" remoid-o'donnell,="" sci.="" tenen,="" th="" the="" u.s.a.=""><th>A;Reference inducer: A34133; Moin:0013013; FMID:2033/33 A;Accession: A30803 A;Molecule type: mRNA A;Residues: 917-1042 <ar2> A;Cross-references: GB:M18044</ar2></th><th>R.Hickstein, D.D.; Hickey, M.J.; Ozols, J.; Baker, D.M.; Back, A.L.; Roth, Proc. Natl. Acad. Sci. U.S.A. 86, 257-261, 1989 A.Title: cDNA sequence for the alpham subunit of the human neutrophil adhe: A;Reference number: A32218; MUID:89098893; PMID:2563162 A;Accession: A32218 A;Molecule type: MRNA A;Residues: 9-1153 <hic> A;Cross-references: GB:J04145; NID:g189068; PIDN:AAA59903.1; PID:g386975</hic></th><th></th></shs.>	A;Reference inducer: A34133; Moin:0013013; FMID:2033/33 A;Accession: A30803 A;Molecule type: mRNA A;Residues: 917-1042 <ar2> A;Cross-references: GB:M18044</ar2>	R.Hickstein, D.D.; Hickey, M.J.; Ozols, J.; Baker, D.M.; Back, A.L.; Roth, Proc. Natl. Acad. Sci. U.S.A. 86, 257-261, 1989 A.Title: cDNA sequence for the alpham subunit of the human neutrophil adhe: A;Reference number: A32218; MUID:89098893; PMID:2563162 A;Accession: A32218 A;Molecule type: MRNA A;Residues: 9-1153 <hic> A;Cross-references: GB:J04145; NID:g189068; PIDN:AAA59903.1; PID:g386975</hic>	
GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.	n on: November 25, 2003, 14:	Title: US-09-902-481B-5 Perfect score: 5876 Sequence: 1 FNLDTENAMTFQENARGFGQFKRQYKDMMSEGGPPGAEPQ 1137	Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5	Searched: 283308 segs, 96168682 residues	tal number of hits sa	Minimum DB seq length: 0  Maximum DB seq length: 2000000000  Post-processing: Minimum Match 0%  Maximum Match 100%  Listing first 45 summaries	Database : PIR 76:* 1: pir1:* 2: pir2:* 3: pir3:*	: pir4 s the n er than ved by	Result Query Description Description	\$862 99.8 1153 1 RWHU1B 4470 76.1 1153 2 SO0551 3479 59.2 1163 1 RWHU1C 1553.5 26.4 1170 2 SO3308 1538.5 26.2 1163 2 IS6126	1153 19.6 1179 2 A53213 1103.5 18.8 1151 2 A45226 1085 18.5 1170 2 145914 1071 18.2 1178 2 534142 1068 18.2 1181 2 A33998	1062 18.1 1180 2 663 11.3 1039 2 635 10.8 1038 2 630 10.7 1038 2 614.5 10.5 1041 2 579.5 9.9 1054 2	5/2.5 9.7 1051 2 A53761 567.5 9.7 1053 2 I55534 555.5 9.5 1053 2 S44250 542.5 9.2 1034 2 A36108 535 9.1 1044 2 T10050	22000000000000000000000000000000000000	

position-specific	integrin alpha-2b	integrin alpha-7 c	glycoprotein IIb -	alpha-7 integrin -	leukocyte adhesion	integrin alpha cha	F54F2.1 protein -	integrin alpha v c	hypothetical prote	integrin alpha cha	integrin alpha cha	glycoprotein IIb -	integrin alpha cha	glycoprotein IIb -	integrin alpha-1 -
A29637	A34269	305950	A60163	161186	B30892	S38783	S44824	860571	S28277	T09403	T09433	136916	T18523	136917	A55348
N	~	~	~	~	~	7	7	~	7	7	7	7	7	7	7
1394	1039	1137	1037	1135	126	1106	1226	1045	1139	1115	1115	764	1086	604	272
8.4	8.4	8.4	8.3	8.3	8.3	8.0	7.9	7.7	7.6	7.2	7.1	6.7	5.3	5.1	5.1
496	495.5	494	490.5	488	486	470	467	453	445.5	423	418.5	391	309.5	299	298.5

## ALIGNMENTS

RESULT 1 RWHULB cell surface glycoprotein CD11b precursor [validated] - human N;Alternate names: complement receptor type 3 alpha chain; leukocyte adhesion protein eukocyte integrin alpha chain; neutrophil adherence receptor alpham chain C;Species: Homo saniens (man)
 C;Date: 31-Dec-1992 #sequence_revision 31-Dec-1992 #text_change 31-Dec-2000 C;Accession: A31108; A28915; A41600; A30892; A32218; A46526; A26091; I52567 R;Corbi, A.L.; Kishimorcy, T.K.; Miller, L.J.; Springer, T.A. J. Biol. Chem. 263: 12403-12411. 1988
A;Title: The human leukocyte adhesion glycoprotein Mac-1 (complement receptor type 3,
 A;Reference number: A31108; MUID:88315033; PMID:2457584 A;Accession: A31108
A;Molecule type: mRNA A;Residues: 1-1153 <cor></cor>
A;Cross-references: GB:J03925; NID:g187284; PIDN:AAA59544.1; PID:g307148 A;Note: part of this sequence was confirmed by protein sequencing
R;Arnaout, M.A.; Gupta, S.K.; Pierce, M.W.; Tenen, D.G. J. Cell Biol. 106, 2153-2158, 1988
 A;Title: Amino acid sequence of the alpha subunit of human leukocyte adhesion receptor A;Reference number: A28915; MITD:88257215; PMID:2454931
 A; Accession: A28915
 A;Molecule type: mRNA A;Residues: 1-499,501-965,'P',967-1153 <arn></arn>
 A; Cross-references: GB:M18044; GB: J03270; GB:M19664; GB: X07421; NID:g186935; PIDN: AAA:
 A; Note: the authors translated the codon IAC for residue 1129 as int A;Note: part of this sequence, including the amino end of the mature protein, was conf
 R;Shelley, C.S.; Arnaout, M.A. Proc. Nafl. Acad. Sci. 11.8.A. 88. 10525-10529. 1991
 A; Title: The promoter of the CD11b gene directs myeloid-specific and developmentally and seven and developmentally and seven
 A;Reterence number: A41600; MOID:920/3318; PMID:1683/02 A;Accession: A41600
 A;Molecule type: DNA A:Reaidues: 1-9 <she></she>
 A,Cross-references: GB:M76724; NID:g180018; PIDN:AAA58410.1; PID:g553215
R;Arnaout, M.A.; Remold-O'Donnell, E.; Plerce, M.W.; Harris, P.; Tenen, D.G. Proc. Natl. Acad. Sci. U.S.A. 85, 2776-2780, 1988
 A; Title: Molecular cloning of the alpha-subunit of human and guinea pig leukocyte adhe
 A;KRERZENCE NUMBET: A94193; MUID:88190151; FMID:2833/53 A;Accession: A30892
A; Molecule type: mRNA
A; Cranta - vofestiones: 917-1042 < ARZ>
 A. LOBS-LIELELENCES: USINIA ON J. OZOIS, J.; Baker, D.M.; Back, A.L.; Roth, G.J. R; Hicketein, D.D.; Hickey, M.J.; Ozois, J.; Baker, D.M.; Back, A.L.; Roth, G.J.
 Proc. Natl. Acad. Sci. U.S.A. 86, 257-261, 1989
 A;Title: CDNA sequence for the alpham Rubunit of the human neutrophil adherence recept
 A;Kererence number: Aszzio; Moin:ayoyass; FMin:zsazioz

us-09-902-481b-5.rpr

<u>.</u>

10	RESULT 2 \$00551 leukocyte surface glycoprotein Mac-1 alpha chain precursor - mouse N;Alternate names: complement-3 receptor alpha chain C;Species: Mus musculus (house mouse) C;Species: Mus musculus (house mouse) C;Species: Mus musculus (house mouse) C;Accession: \$00551, 159078 R;Pytela, R. EMBO J. 1371-1378, 1988 A;Title: Amino acid sequence of the murine Mac-1 alpha chain reveals homology with the A;Reference number: \$00551, MUID:88312584; PMID:3044779 A;Accession: \$00551 A;Molecule type: DNA A;Residues: 1-1153 <-PVT> A;Cross-references: EMBL:XX7640; NID:952982; PIDN:CAA30479-1; PID:952983 A;Note: the authors translated the codon CAC for residue 569 as Gln
**Fleming J.C.; Pahl. H.L.; Gonzalez, D.A.; Smith, T.F.; Tenen, D.G. J. Immunol. 150, 400-490, 1900-400. J. Immunol. 150, 400-490, 1900-400. J. Immunol. 150, 400-490, 1900-400. J. Immunol. 150, 400-490, 1900-400. J. Immunol. 150, 400-490, 1900-400. J. Immunol. 150, 400-490, 1900-400. J. Manunol. 150, 400-490, 1900-400-400. J. J. Immunol. 150, 400-490, 1900-400. J. J. Immunol. 150, 400-490, 1900-400. J. J. J. A.; Smith, T.F.; Tenen, D.G. J. A.; Reference number: A46256, MUID-19123749; PMID-841940 J. M. Croad-efference of B. 552277; MDJ 262404; PMIN-A814811.; PDI-9523049 J. M. More: the last three based of informal 13. CAG are included in some but not all mature Annotes: acquence attracted from MCIP backbone (WGIR: 121963) J. M. More: the last three based of informal abukecyte diyoportein Mol: conservation across spacetime attracted from MCIP backbone (WGIR: 121963) J. J. J. M. Semold-O'Donnell E. Todd III. R.F.; Arnaout. M.A. J. M. M. M. L., Romania, A.G. J. Selectime and J. M. M. M. M. M. M. M. M. M. M. M. M. M.	OY 61 RLOVPVEAVMASLGLSLAATTSPPOLLACGPTVHQTCSENTYVKGLCFLFGSNLRQOPOK 120

```
F;61,89,392,697,735,899,939,1050/Binding site: carbohydrate (Asn) (covalent) #status
                                                                                                                   셤
                                                                                                                                                                               g
                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                               셤
                                                 셤
                                                                                      ઠે
                                                                                                                                                   ò
                                                                                                                                                                                                                   ક
                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                  δ
R;Sastre, L.; Roman, J.M.; Teplow, D.B.; Dreyer, W.J.; Gee, C.E.; Larson, R.S.; Roberts, Proc. Natl. Acad. Sci. U.S.A. 83, 5644-5648, 1986
A;Title: A partial genomic DNA clone for the alpha subunit of the mouse complement recep A; Reference number: 159078; MUID: 86287312; PMID:2942940
A;Accession: 159078
A;Accession: 159078
A;Molecule type: DNA A;Molecule type: DNA A;Molecule type: DNA A;Residues: 11-44 <RES>
A;Cross-references: GB:M14293; NID:9198993; PIDN:AAA39484.1; PID:9554193
C;Genetics: A;Gene: Mac-1
C;Superfamily: cell surface glycoprotein CD11b; von Willebrand factor type A repeat homo C;Keywords: cell adhesion; glycoprotein; transmembrane protein
F;1-16/Domain: signal sequence #stface glycoprotein Mac-1 alpha chain #status experimental F;148-318/Domain: von Willebrand factor type A repeat homology <WMA2>
F;1106-1129/Domain: transmembrane #status predicted <TWM>
                                                                                                                                                                                                                                                                                                                                   2
                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF 720
                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                               96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NFEALKTIQNQLREKIFALEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                  PLQVPPEAVNMSLGLSLAVGTVPQQLLACGPTVHQNCKENTYVNGLCYLFGSNLLRPPQQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TLVGEPLRSFGNLRPVLAMDAQRFFTAMFPFEKNCGNDSICQDDLSJTMSAMGLDTLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FPEALRECPQQESDIVFLIDGSGSINNIDFQKMKEFVSTVMEQFKKSKTLFSLMQYSDEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TDGEKFGDPLGYEDVI PEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                 1 FNLDTENAMTFQENARGFGGSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                    FNLDTEHPMTFQENAKGFGQNVVQLGGTSVVVAAPQEAKAVNQTGALYQCDYSTSRCHPI
                                                                                                                                                                                                                                                                                                                                                                                                                                RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAFLYTSKDKVTFINTTRVDSDMNDAYLGYASAVILRNRVQSLVLGAPRYQHIGLVVMPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                   ..
7
                                                                                                                                                                                                                                                                                                  Ouery Match 76.1%; Score 4470; DB 2; Length 1
Best Local Similarity 73.9%; Pred. No. 2.5e-302;
Matches 841; Conservative 146; Mismatches 149; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

```
the leukocyte p150,95 molecul
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a leukocy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Accession: S00864
A;Molecule type: mRNA
A;Residues: 1-755,'L', 757-1163 <CO3>
A;Cross-references: GB:MB1695; EMBL:Y00093; NID:g487829; PIDN:AAA59180.1; PID:g487830
A;Cross-references: GB:MB1695; EMBL:Y00093; NID:g487829; PIDN:AAA59180.1; PID:g487830
A;Note: part of this sequence was confirmed by protein sequencing
C;Comment: A common beta chain (CD18) forms a heterodimer with CD11b to form Mac-1 on C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A Accession: A36584
A, Molecule type: DNA
A, Residues: 1-163 < COR>
A, Note: this revision to the sequence from reference A35543 includes the carboxyl R; Corbi, A.L.; Carcia-Aguilar, J; Springer, T.A.
J. Biol. Chem. 265, 2782-2788, 1990
A, Fitle: Genomic structure of an integrin alpha subunit, the leukocyte pl50,95 mol A; Reference number: A35543; MUID:90153906; PMID:2303426
                                                                                                                                                                                                                                                                                                                                                                                                                             1079
                                                                                                                                                                                                                                                                                                                    1019
                                                                                                                                                                                                                                                                                                                                                                        1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1095
                                                                                                                                                                                                             959
                                                                                                                                                                                                                                                               975
                                                 855
839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              structure of the alpha subunit of PMID:3327687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cell Burface glycoprotein CDIIC precursor - human Cjacarnate names: leukocyte adhesion receptor p150,95 alpha chain Cjopecies: Homo sapiens (man) Cjopecies: Homo sapiens (man) Cjacecesion: A36584; A35543; S00864 R;Corbi, A.L.; Garcia-Aguilar, J.; Springer, T.A. J. Biol. Chem. 265, 12750-12751, 1990 A;Reference number: A36584 A;Corbiner: erratum
                                                                                                                                  GHGALKSTTWNINHDIFPANSEVTFNVTFDVDSHASFGNKLLLKAIVASENNMSRTHKTK
                                                                                                                                                                                                                                      916 FQLELPVKXAIYMIVTSDESSIRYLNFTASEMTSKVIQHQYQFNNLGQRSLPVSVVFWIP
                                                                                                                                                                                                                                                                                                                                                     PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1036 PSFNTQEIFNVTLKGNLSFDWXIKTSHGHLLLVSSTEILFNDSAFALLPGQESYVRSKTE
                                                                                                      840 VSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTE
                                                                                                                                                                                                             POLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                    VRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCS1AVCQRIQCDI
GPREFNVTVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRL-ACESASSTE
                                 A,Accession: A35543
A,Molecule type: DNA
A,Residues: 1-834 < CCO2>
A,Residues: 1-834 < CCO2>
A,Note: this sequence has been revised in reference A36584
R,Note: this sequence L.J.; O'Connor, K.; Larson, R.S.; Springer, 'EMBO', G, 4023-4028, 1987
BMBO J. G, 4023-4028, 1987
A,Fitle: CDNA cloning and complete primary structure of the alpha sha,Reference number: S00864; MUID:88166645; PMID:3327687
                                                                                                                                                                                                                                                                                                                                                                                                                             1020
                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                    096
781
```

Ω,

```
960 VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VELNQEAVWMDVEVSHPQNPSLRCSSEKIAPPASDFLAHIQKNPVLDCSIAGCLRFRCDV 1034
                    4
                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                  556
                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                          616
                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               974
                                                                                                                         180
                                                                                                                                                                 240
                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                      377
                                                                                                                                                                                                                                                                                                                437
                                                                                                                                                                                                                                                                                                                                                        497
                                                                                             GLOVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR 137
                                                                                                                                             197
                                                                                                                                                                                      257
                                                                                                                                                                                                           TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                               RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                          79
                                                                                                                         FPEALRGCPQEDSDIAFLVDGSGS11PHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                    NFEALKTIQNQLREKIFA İEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                               GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                        PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                       HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                   PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEGQKQQQLRSLHLTCDSAPVG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QLELPVKYAVYMVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             915 QLELPVKYAVYTVVSSHEQFTKYLNFSESEEKESHVAMHRYQVNNLGQRDLPVSINFWVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                    RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                             ONTGMWESNANVKGTO1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                        FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                    Gaps
                    9
                    Indela
Length
59.2%; Score 3479; DB 1;
llarity 61.1%; Pred. No. 2.3e-233;
Conservative 141; Mismatches 292;
          Similarity
                     690;
                                                                                61
                                                                                                                                                                                                                                258
                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                         438
                                                                                                                                                                                                                                                                                                                                                                                                  498
                                                                                                                                                                                                                                                                                                                                                                                                                                           557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                             20
                                                                                                      89
                                                                                                                                                                    181
                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                         318
                                                                                                                                                                                                                                                                                                                  378
                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                          121
                                                                                                                                               138
 Match
 Query Ma
Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              음 &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             음 장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                         g
                                                                                                                                                                ò
                                                                                                                                                                                 g
                                                                                                                                                                                                     ò
                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                           g
                                                                                ò
                                                                                                 유
                                                                                                                       δ
```

```
cell surface glycoprotein CD11a precursor - human N;Alternate names: leukocyte adhesion glycoprotein LFA-1 alpha chain; leukocyte functi C;Specias: Homo sapians (man) C;Decises: Homo sapians (man) C;Decises: Homo sapians (man) C;Date: 28-Feb-1990 #text_change 20-Aug-1999 C;Accession: S03308; A47458; Ā47565; A48759; S36044 R;Larson, R.S.; Corbi, A.L.; Berman, L.; Springer, T. A;Title: Primary structure of the leukocyte function-associated molecule-1 alpha subur A;Reference number: S03308; MUID:89139587; PMID:2537322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;COSS-references: GDB:119757; OMIM:153370
A;Map position: 16p11.2-16p11.2
C;Superfamily: cell surface glycoprotein CD11b; von Willebrand factor type A repeat ha
C;Keywords: cell adhesion; cytoskeleton; glycoprotein; heterodimer; surface antigen; 1
F;1-25/Domain: signal sequence #status predicted <SIG>
F;26-1170/Product: leukocyte adhesion glycoprotein LFA-1 alpha chain #status predicter
F;154-317/Domain: von Willebrand factor type A repeat homology <VWA2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       factors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CD11a)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           promoter
                                              1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nuclear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Accession: S03330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0330: S0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26 YNLDVRGARSFSPPRAGRHFGYRVLQV-GNGVIVGAPGE---GNSTGSLYQCQSGTGHCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PIRLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLR---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -QQPQKFPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLM
A; Cross-references: EMBL: Z22804; NID: g311405; PIDN: CAA80461.1; PID: g311406 C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FNLDTENAMTFQ - - ENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: DNA
A; Residues: 1-20 «COR»
A; Note: sequence extracted from NCBI backbone (NCBIN:130862, NCBIP:130863)
A; Note: sequence extracted from NCBI backbone (NCBIN:130862, NCBIP:130863)
B; Shelley, C.S.; Farckbad, O.C.; Arnaout, M.A.
Proc. Natl. Acad. Sci. U.S.A. 90, 5364-5368, 1993
A; Title: Identification of cell-specific and developmentally regulated nuch A; Reference number: A47565; MUID:93281759; PMID:8099450
A; Accession: A47565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Cross-references: GB:M95609
R;Nueda, A.; Lopez-Cabrera, M.; Vara, A.; Corbi, A.L.
J. Biol. Chem. 268, 19305-19311, 1993
A;Title: Chemacterization of the CD11a (alphaL, LFA-lalpha) integrin A;Reference number: A48759; MUID:93374910; PMID:8103515
A;Accession: A48759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 26.4%; Score 1553.5; DB 2; Length 1170; Best Local Similarity 34.7%; Pred. No. 2.2e-99; Matches 407; Conservative 206; Mismatches 460; IndelB 101;
                                                                                                                                   TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                      A;Gene: GDB:ITGAL; CD11A
A;Cross-references: GDB:1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-20 <SHE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA
A; Residues: 1-20 <NUE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              85
                                                                                                                                            1080
                                                                                                                                                                                                                                     1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            윰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                        음
                                                                                                                                       ઠે
                                                                                                                                                                                                                            셤
```

셤

```
945 KIHOVKHMYQVRIQPSIHDHNIPTLEAVVGVPQPPSEGPITHQWSVQMEPPV--PCHYED 1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -ERLPSHSD--FLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIK 1043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1044 TSHNHLLIVSTAEILFNDSVFTLLPGOGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLL 1103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AS-SMFSLCSSLSISFNSSKHFHLYGSNASL-AQVVMKVDVVYEKQMLYLYVLSGIGGLL 1102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1003 LERLPDAAEPCLPGALFRGPVV-------FRQEILVQVIGTLELVGEIE 1044
                                                                                                                                                                                                                                  528
                                                                                                                                      412
                                                                                                                                                      588
                                                                                                                                                                                                                                                                                                                               647
                                                                                                                                                                                                                                                                                                                                          887
                                                         IGLVAMFR -- ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQT 470
                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                            707
                                                                                                                                                                                                                                                                                                                                                                                          DNICODDLSITESFMSLDCLVVGGPREFNVTVRNDGEDSYRTQVTFFFPLDLSYRKVS 817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   818 TLONORSORSWRLACES - ASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKAS 875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TSRVMQHQYQV---SNLGQRSLP-ISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTK- 986
                                                                                         HVFQINNFEALKTIONOLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVG 354
                                                                                                                                                                                                                                                                                                                                                                                                                        EDPVSPIVLRLNFSL---VGTPLS--AFGN-----LRPVLAEDAQRLFTALFPFEKNCGN 757
QYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAF 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 876 LGNKLLLKANVISENN----MPRINKTEFQLELPVKYAVYMVVISHGVSTKYLNFTASEN
                     <u><u></u><u>ÓFSTSYKTEFDFSDYVKWKDPDALLKHVKHMLLLÍNÍFGAÍNYVATEVFREELGARPDAT</u></u>
                                                                                                       310 FVKILDTFEKLKDLFTELQKKIYVIEGTSKQDLTSFNMELSSSGISADLSRGHAVVGAVG
                                                                                                                                                                                                                                                                                GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                                                             KILILITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRD
                                                                                                                                                                                                                                                                                                                             GAQGHVLLLRSQPVLRVKAİMEFNPREVARNVFECNDQVV-KGKEAGEVRVCLHVQKSTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RGGQVSVCPLPRGQRARWQCDAV--LYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                                                                                                           DRLREGGIQSVVTYDLALD$GRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCI
                                                                                                                                      SYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LLALITAALYKLGFFKROYKDMMSEG-GPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    490
                                                                                                                                                                                                                                                                                                                                                    602
                                                                                         295
                                                                                                                                                           370
                                                                                                                                                                                                                                                                                                                                                                           648
                                            235
                                                                                                                                      355
                                                                                                                                                                                                                                                                                529
                                                                                                                                                                                     413
                                                                                                                                                                                                                                                                                                                                                                                                                        7.08
                                                                                                                                                                                                                                                                                                                                                                                                                                               719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             774
                                                                                                                                                                           8 6 8 6
                                                                                                          유
                                                                                                                             8
6
                                                                                                                                                                                                                                                                        g
                 셤
                                           8
                                                           8
                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
```

molecule-1-alpha

156126 lymphocyte fuction-associated

RESULT 5

```
molecule-1 alpha-subunit
                                                                                                                                                                                                                                                                                                                                                                                                     A repeat ho
C;Species: Mus musculus (house mouse)
C;Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 20-Aug-1999
C;Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 20-Aug-1999
C;Accession: 186126
R;Kaufmann, Y: Tseng, E.: Springer, T.A.
J. Immunol. 147, 369-374, 1991
A;Title: Cloning of the murine lymphocyte function-associated molecule-1 alpha-sA;Recession: 186126
A;Accession: 186126
A;Accession: 186126
A;Accession: 156126
A;Accession: 156126
A;Genus: 1-1163 A;Res>
A;Cross-references: GB:M60778; NID:g198785; PIDN:AAA39426.1; PID:g198786
C;Gene:LRA.1
C;Superfamily: cell surface glycoprotein CD11b; von Willebrand factor type A rep F;151-315/Domain: von Willebrand factor type A rep
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQ 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YOHIGLVAMER -- ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYY 467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24 YNLDTRPTQSFLAQAGRHFGYQVLQIEDG-VVVGAPGE---GDNTGGLYHCRTSSEFCQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        : | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | | : | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KFPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FRIHFTFKEF-QNNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LITDGEKFGDPLGYEDVIPEADREG-----VIRYVIGVGDAFRSEKSRQELNTVASKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TVGSYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YQHVGQVLLFQAPEAGGRWNQTQKIEGTQIGSYFGGELCSVDLDQDGEAELLLIGAPLFF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PLEE--QGAVYIFNGKPG-GLSPQPSQRIQGAQVFPGIRWFGRSIHGVKDLGGDRLADVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PQ--FQGRLLANLSYTLQLDGHRMRSRGLFPDGSHELSGNTSITP-DKSCLDFHFFFFIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 FNLDTENAMTFQENA-RGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         292 PRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAG-EVRVCLHVQKST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RDRLREGOIQSVVTYDLALDSGRPHSRAVFNETKNSTRROTQVLGLTQTCETLKLQLPNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IEDPVSPIVLRLNFSLV---GTPLSAFGN-LRPVLAEDAQRLFTALFPFEKNCGNDNICQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26.2%; Score 1538.5; DB 2; Length 1163; larity 34.2%; Pred. No. 2.4e-98; Conservative 214; Mismatches 458; Indels 99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Simi:
Matches 401; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6 B 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               े
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
```

Db 295 SSHGSRRKASKVMVULTDGGIFEDPLNLTTVINSPKMQGVERPAIGVGEEFKSARTAREL 354  285 NTVASKPPRDHVFQINNFEALKTIONQLREKIFAIEGTQTGSSSFEHEMSQEGFSAAIT 344  Db 355 NLIASDPDETHAFKVTNYMALDGLISKLRYNIISMEGTVGDALHYQLAQIGFSAQIL 411  Qy 345 SNGP-LLSTVGSYDMAGGVFLY-TSKEKSFFINMTRVDSDMNDAYLGYAAAIILRN 398  412 DERQVLLGARVGAPDWSGGALLYDTRSRRGRFLNOTAAAADAEAAQYSYLGYAAVULHKT 471  Qy 399 RVQSLVLGARVGAPDWSGGALLYDTRSRRGRFLNOTAAAADAEAAQYSYLGYAAVULHKT 471  Db 472 CSLSYVAGAPQYKGHGAVPELQKEGREASFLPVLEGEGWGSYFGSELCPVDIDMGST 529  Qy 457 DLVLIGAPHYYEQTRGGGVSVCPLPRGGRARWQCDAVLYGEGGQPWGRFGAALTVLGDW 516	691 GIOTCELEKIQOPNCIEDPVSPIVELANESLYGTPLASFGNIEPALEDAGRIFT  757 SGSQLCEDL-LLMPTEGELCEEDCFSNASVKVSYQL-QTPEGQTDHPQPILDRYTEPFA1  747 ALFPFERNCGNDNICQDDLSITFSFMSLDCLVVGGPREFNYTYTRNDEDSYRTQVTFF  815 FQLFSYRKVSTLQNQSSGRWRLACESASSTEVGGALKSTSCSINHPIFPENSEVTFNI  807 FPLDLSYRKVSTLQNQSSGRWRLACESASSTEVGGALKSTSCSINHPIFPENSEVTFNI  807 FPLDLSYRKVSTLQNQSSGRWRLACESASSTEVGGALKSTSCSINHPIFPENSEVTFNI  807 FPLDLSYRKVSTLQNQPSPDNIQCDDPQVASVLIMNCRIGHPL-KRSSAHVSV  807 FPLDLSYRKVSTLQNQPSPDNIQCDDPQVASVLIMNCRIGHPL-KRSSAHVSV  807 FPLDLSYRKVSTLGNKLLLKANVTSENNMPRTHATLQFRHGFVALSKPSIMYVNTGGL  908 FPLDLSYRKVSTLGNKLLLKANVTSENNMSTLTHTQFRHGFVALSKPSIMYVNTGGL  909 STKYLNFTASENTSRVMQHQVQNSNLGQRSLPISLVFLVPVRLNGTVIMDRPQVTFSE  1029 ASTVCTWSGERACAYSS-VQHVEEMHSVSCVIA
0	ASSULT 6 ASS

	····				· · · · ·					_					
homology	929	106 119	165 174	223 234	278 293	338 353	392 412	451 472	495 532	554 591	614 651	671 704	725 755	78 <b>4</b> 810	844 853
A;Scatus: preliminary; not compared with conceptual translation A;Molecule type: mRNA A;Molecule type: mRNA A;Molecule type: mRNA A;Residues: 1-1151 cBRI> A;Experimental source: hepatoblastoma cell line HepG2 A;Note: sequence extracted from NCBI backbone (NCBIP:124326) A;Note: sequence extracted from NCBI backbone (NCBIP:124326) C;Superfamily: unassigned collagens; von Willebrand factor type A repeat hor F;142-317/Domain: von Willebrand factor type A repeat hor E;142-317/Domain: von Willebrand factor type A repeat hor Best Local Similarity 27.8%; Pred. No. 4.3e-68; Indels 195; Gaps Marches 344; Conservative 212; Masmatches 486; Indels 195; Gaps	VVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGS 	CEP-IRLQVPVEA	CFLFGSNLRQQPQKFPEALKGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLK- 	-KSKTLFSLMQYSEEFRIHFTFKEFQNNPNFRSLIKPITQLLGR-THTATGIRKVVRELF 	NITNGARKNAFKILILITDGEKFGPLGYEDVIPEADREGVIRYVIGVGDAFRSE 	KSROELNIVASKPPRDHVFQINNFEALKTIONQLREKIFAIEGTGTGSSSSFEHEMSQEG 	KSTF-INMTRVDSDMNDAYLGYAA 	AIILRNRVQSL-VLGAPRXQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVD 	SNGSTDLVLIGAPHYYEQTR-GGQVSVCPLPRGQRARWQCDAVLY : :     :	GEOGQPWG-RFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQ : :	riagsklsprloyfgosls 	EVARNVFECNDQVVKGKEAGEVRVCLHVQ-KSTRDRLREGQIQSVVTYDLALDSGRPH 	SRAVFNETKNSTRROTQVLGLTQTCETLKLQLPNCIEDPVSP1VLRLNFSLVGT   :  :  :     ::     ::  SRSFFSGTQERKVQRNITYRKSECTKHSFYMLDKHDFQDSVRITLDFNLT-D	PLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGGPRE- 	FNVTVTVRNDGEDSYRTQYTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGAL    ::  :  :  :  :  :  :  :  :  :  :  :
i A45226  Eype: mRnA, 1-1151 cRnA, ital source: hepatoblas pence extracted from h ly: unassigned collags jomain: von Willebrand ch 18 jmilarity 27.8%; il Similarity 28;														PLSAFGN   : PENG	
A.Accession: A.Status: pre A,Molecule ty A.Residues: 1 A.Exeriment A.Doce: seque A,Noce: seque C.Superfamily F,142-317/Dom Best Local Matches 34	Qy 1 Db 1	Oy 57 Db 61	Oy 107 Db 1:20	Qy 1.66 Db 1.75	Oy 224 Db 235	Qy 279 Db 294	Oy 339 Db 354	Qy 393 Db 413	Qy 452 Db 473	Oy 496 Db 533	Qy 555 Db 592	Qy 615 Db 652	Qy 672 00' du	Oy 726 Db 756	Qy 785 Db 811

```
integrin alpha 2 subunit - bovine (fragment)
C;Species: Bos primigenius taurus (cattle)
C;Species: Bos primigenius taurus (cattle)
C;Species: Bos primigenius taurus (cattle)
C;Accession: 145914
R;Kamata, T.; Puzon, W.; Takada, Y.
C;Accession: 145914
A;Title: Identification of putative ligand binding sites within the I-domain of integrance number: A59, 4652-9663, 1994
A;Title: Identification of putative ligand binding sites within the I-domain of integrance number: A5914
A;Accession: 145914
A;Accession: 145914
A;Accession: 145914
A;Accession: 145914
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession: 145014
A;Accession
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   :| |:: :::|:
1022 STD---HLKRGTILDCNTCKPATITCNLTSSDISQVNVSLILWKPTFIKSYFSSLNLTIR 1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                973 KLSISFPNMTSNGYPVLYPTGLSS-----SENANCRPHIFEDPFSINSGKKMTT 1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1034 GNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPL 1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          33 SDVSPDF-QLRTSFAPAVQTCP-SFIDVVVVCDESNSIYPWD--AVKNFLEKFVQGLDIG 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          :: | | | :::::| | | :::::| | | :::::| | | :::::| | | :::::| | | :::::| | | ::::| | | :::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| ::| | ::| ::| | ::| ::| | ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::| ::
                                                                                                            854 HNITCKVGYPFLRRGEMVTFKILFQFNTSYLMENVTIYLSATSDSEEPPETLSDNVVNIS 913
                                                                                                                                                                                                                                                                                                            950
                                                                                                                                                                                                                                                                                                                                                                                                        991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 166 KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLL----GRTHTATGIRKVVRE 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       195 PTKTOMGLIQYANNPRVVFNLNTFKSKD---EMÍKATSOTFQYGGDLTNTFKAIQYARDT 251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               :: :|: :|| | | | ::: | | :|| | | :|| | 311 TKNLIKEIRAIASIPTERHFFNVSDEADLLEKAGTIGEQIFSIEGTVQG-GDNFQMEMSQ 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EGFSAAIT--SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT--RVDSDMN-DAYLGYA 391
845 KSTSCSINHPIFPENSEVTFNITFDVDSKASLGN-KLLLKANVTSENNMPRTNKTEFQLE 903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GSCEPIRLO-----VPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 951 PISLVF-----LVPVRLNQTVIMDRPQVTFSENLSSTCHTKE------RLPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 FULDTENAMTFQ-ENARGFGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQC--DYST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FLFGSNLRQQPQKFPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLK--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              222 LFNITNGARKNAFKILILITDGEKFGDPLGYEDVIPEADREGVIRYVIGV----GDAFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   277 SEKSRQELNTVASKPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
18.5%; Score 1085; DB 2; Length 1170;
Best Local Similarity 27.6%; Pred. No. 8.6e-67;
Matches 335; Conservative 217; Mismatches 495; Indels 168; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1094 -- IVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |: |: |||| |: ||:|||| |: ||:|||| | |: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: 
                                                                                                                                                                                                                                                                                                            LPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSN-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              55
                                                                                                                                                                                                                                                                                                            904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
```

oss-references: EMBL:Z29987; NID:g473098; PIDN:CAA82877.1; PID:g473099	ily; unassigned collagens; von Willebrand factor ty Domain: von Willebrand factor type A repeat homolog	1178;	342; 1 FNI	27 YNVGLPGAKIFSGPSSEQFGYSVQQLTNPQGNWLLVGSPWSGFPENRMGDVYKCPVDLPT 86	GSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLC			Ϋ,	200 DIGPKKTOVALIQYANEPRIJENLNDFETKEDMVQATSETRQHGGDLTNTFRAIEFARDY 259		277 SEKSRQELNTVASKPPRDHVFQINNFEALKTIQNQLREKIPAIEGTQTGSSSSFEHEMSQ 336		EGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMN-DAYLGYA	3/8 VGFSADIAPUNDILMLGAVGAFDWSGILVQEISHKFVIFFKLAFDUVLQDKNRSSFLGIS 43/ 392 AAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCS 447		DAVLYGEOGOPWGRF		506 GAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPR- 564    -	-LOYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFEC		624 NDQVVKGKEAGEVRVCLHVQKSTRDRLREGQ1QSVVTYDLALDSGRPHSRAVFNET 679	661 -DKITLLINKDAKITLKLCFRAEFRFAGGINQVAILFNMTLDADGHSSRVTSKGVFREN 717	680 KNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVL 737	718 SERFLOKAMVANEVOKCSEHHISIOKPSbvVNPLDLRVDISLENPGTSPAL 768	738 AEDAQRLFTALPPFEKNCGNDNICQDDLSITPSFMSLDCLVVGGPREFNVT 788	769 BAYSETVKVFSIPFYKECGSDGİCISDLILDVQQLPAIQİQSFIVSNQNKRLIFS 823	VIVRNDGEDSYRIQVIFFFPLDLSYRKVSTLQNQRSQRSWRLACESASST-EVSGALKST	VILKNRGESAYNTVVLAEFSENLFFASFSMPVDGTEVTCEVGSSQKSV	848 SCSINHFIFPENSEVTFNITFDVDSKASLGNKLLLKRNVTSENNMFKTNKTEFQLELE 905	VKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLV
A,Cre	C;Sul F;16	ă e	Oy Ma	셤	ò	a 8	· 음	ò	a 8	S 8	È	셤	ò	8 8	q	ò	q	è 6	8 8	g q	ò	qq	È	අ	ò	අු	w		ò 5	3 ∂ 
Db 370 VGFSAEYSPONNILMLGAVGAYDWSGTVVOKTPHGHLIFSKQAFEQILQDRNHSSYLGYS 429	392 AAIILRNRVOSLVLGAPRYQHIGLVAMFRONTGMWESNANVKGTQIGAYFGASL	430 VASISTGNSVHFVAGAPRANYTGQIVLYSVNENGNVTVIQSQRGDQIGSYFGSVL	OY 446 CSVDVDSNGSTDLV1.1GAPHYYEQTRGGOVSVCPLPRGORARWQCDAV1.VGDGQDPWG 503    1-      -	Qy 504 RFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKL 561	Db 542 RFGSAIAALSDINMDGFNDVIVGSPLENQNSGAVYIYNGHEGM-IRLRYSQKILGSDRAF 600	562 SPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVF	Db 601 SSHLQYFGRSLDGYGDLNGDSITDVSVGAFGQVVQLMSQSIADVSVDASFTPKKITLL 658 Ov 622 ECNDOVVKGKEAGEVRVCLHVQKSTRDRLREGOIOSVVTYDLALDSGRPHSRAVFN 677	659 NRNAEIKLKLCFSAKFRPTNQNNQVAIVYNITIDEDQFSSRVISRGLFK	ETKNSTRRQTQVLGLTQTCE	734 RPVLAEDAQRLFTALFPERKNCGNDNICQDDLSITFSFMSLDCLVVGGPREFNVTV		Qy 790 TVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASST-EVSGALKSTS 848	817 QLKNKKESAYNTEIVVDFSENLFFASWSMPVDGTEVTCQIASSQKSVT	OY 849 CSINHFIFPENSEVTRNITRPUDSKAGLGNKLLLKANVTSENNMPRINKTERQLELPYKX 908 		Db 924 DAEIHIT-RSTNINFYEV\$LDGNVSSVV-HSFEDIGPKFIFSIKVTTGSVPVSMA 976	Qy 959 PVRLNQTVIWDRPQVIFSENLSSTCHTKE	776	OY 999 EKKAPVONCSIAVCOKIQCDIPFFGIQEEFNATEKGNESFUMIIKISHNHLLISIAEL- 105/ 	1058 LFNDSVFTLLPGQGAFVRSQTETKVEPFE-VPNPLPLIVGSSVGGLLLLALITA		Qy 1111 ALYKLGPFKRQYKDM 1125	Db 1141 ILWKLGFFKRKYEKM 1155	6 E. II. 34	AESOUL 3 184142 Wiletain homolog - mouse	van 2 process musicog - mouse C.Species: Mus musculus (house mouse) C.Date. 11.11an-1006 #companse ravision 12.1an-1006 #text channe 20.5en-1009	C.baces: 13-van 1333 #Sequence_revision 13-van 1333 #cercesions of September 1333 #cercesions SA142 R.Edeesman, J. M.: Chan, B.M.: Unival, S.: Onodera, H.: Wang, D.Z.: Damianovich, L.; Latz	esion	A;Reference number: S44142 A;Accession: S44142 A;Accession: S44142	A;occus: prefillinary A;Molecule type: mRNA A;Residues: 1-1178 <ede></ede>

i Mark

SS GSCEPIRLQVPVEAVNMSLGLSLAATTSPPOLLACGFTVHQTCSENTYVKGLC 107	315 LIKEIKAISIPTERYFFNVSDEAALLEKAGTLGEGITSIEGITVG-GDNFGMEMSGVGF 383 340 SAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMN-DAYLGYAAAI 394 341 :	
6 8 6 8 6 8 6	8 8 8 8 8 8 8 8 8 8 8	8 4 8 4 8 4 8 4 8 4 8 8 8 8 8 8 8 8 8 8
Db 929 LLYDAELHLT-RSTNINFYEISDENAPSVIKSVEDIGERKIFSLKVTAGSAPVSMA 984  Qy 956 FLV	RESULT 10 A31398 integrin alpha-2 chain precursor human NiAlternate names: CD49b; platelet glycoprotein GPIa; VLA-2/collagen receptor alpha-2 ch C;Species: Homo sapiens (man) C;Date: 30-Mar-1990 #sequence revision 18-Sep-1992 #text_change 21-Jul-2000 C;Accession: A33998; B56793; A53117 S;Takada, Y; Hemler Mar. J; Hemler, M.E. J; Call Biol: 109, 397-407, 1989 A;Title: The primary structure of the VLA-2/collagen receptor alpha(2)-subunit (platelet A;Reference number: A33998 A;Accession: A3399 A;Accession: B33998 A;Accession: B33998 A;Accession: B5733; NID:g33906; PIDN:CAA34894.1; PID:g33907 A;Cocssion: A3399 A;Cocssion: A3399 A;Cocssion: B5733; NID:g33906; PIDN:CAA34894.1; PID:g33907 A;Cocssion: A1-425, 1991 A;Title: Separation of important new platelet glycoproteins (GPIa, GPIc*, GPIIa an A;Accession: B56793; MUID:92061944; PMID:1953640 A;Accession: B56793 A;Accession: B56793	A Residues: 30-43 *CAT> A Experimental source: platelet B Experimental source: platelet B Experimental source: platelet B F Zutter, M.M.; Sancoro, S.A.; Painter, A.S.; Tsung, Y.L.; Gafford, A. B 50.1 Chem. 269, 463-469, 1994 A; Title: The human alpha-2 integrin gene promoter: Identification of positive and negati A; Accession: A51117, MUID: 94103255; PMID: 8276836 A; Accession: A51117, MUID: 94103255; PMID: 8276836 A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Residues: 1-16, 'V. 18-21 < ZUT> A; Resi

tion of a

	Qy 1020PFGIQEEFNATLKGNLSFDWYKTSHNHLLIVSTAEILFNDSVFTLLPGGGAF 1073 Db 1089 LWKHPF	Qy 53 STGSCEPIRLQVPVEAVNMSLGLSLAAATTSP-PQLLACGPTVHQ 95
1049 LLIVSTAEI-LEPUSCYFTLL PGCGAFVRSOTETKVEPFEVDNPLPLIVGSSV	57 CEP-TRIQUEVEA	Db 562 KNEPCGARFGTAIAAVKDLNVDGFNDVVIGAFLEDDHAGAVYIYHG-SGKTIREAYAQRI 620 Qy 557 ÄGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREV 616

1 ymphocy

us-09-902-481b-5.rpr

Dp	101	RKNPNQTCEQLQSGSPSGEPCGKTCLEERDNQWLGVTLSRQPGENGSIVTCGHRWKNIFY	160
ò		ш	155
Dp	161		185
ò	156	FONNPNPRSLIKPITQLLGRTHTATGI	215
qa	186	:   :  RMAPQYKDYT	195
ò	216	PLGYEDVIPEADREGVIRYVIGVGDAF	275
qq	196	RKFGE	200
λ	276	(TIQNQLREKIFAIEGTQTGSSSSFEHEMS	335
Op QC	201	. DNFAS	205
ò	336 (		391
QQ	206	QAGISSFYTQDLIVMGAPGSSYWTGTVFVYNITTNQYKAFVDRQNQVKFGSYLGYSVG ;	263
ò	392	AAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCS	447
οp	264	YEMKGKKLGSYFGASVCA	319 .
'n	448	VDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPRGQRA-RWQCDAVLYGEQGQPWGRFG	506
DP DP	320		376
٥٨	507	AALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQ	995
QQ	3,77		435
γ̈́	567	YFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECN	624
QQ			494
'n	625 1	DQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALDSGRPHSRAVFNET	679
qa	495		547
ò	680		734
Db	548	SOVITGSIRVSSSGEKCRTHQAFMRKDVRDILLPIHVEATYHLGHHVITKRNTEEFPPLQ	607
0y	735		787
QQ	809	PILQQKKEKDVIRKMINFARFCAYEN-CSADLQVSAKVGFLKPYENKTYLAVGSMKTIML	999
0y	788	TVIVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGALKST	847
Db	667		716
0y	848		905
qq	717		176
'n	906		957
QQ	1777		834
'n	958	VPVRLNQTVIMDRPQVTFSENLSSTCHTKERLPSHSDFLAELR	1000
DÞ	835	VPNSFLPQDDKLFNVLDVQTTTGQCHFKHYGRECTFAQQKGIAGTLTDIVKFLSKTD (	891
δ	1001	KAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTABIL	1058
Db	892		933
٥⁄	1059	FNDSVFTLLPGQGAFVRSQTETKVEPFEVPNP	1090
QQ	934	:  ;	983

```
A;Cross-references: GB:M62841
R;Takada, Y:; Strominger, J.L.; Hemler, M.E.
Proc. Natl. Acad. Sci. U.S.A. 84, 3239-3243, 1987
A;Title: The very late antigen family of heterodimers is part of a superfamily of mole
A;Reference number: A94151; MUID:B7204112; PMID:3033641
A;Accession: D28018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Course references: GDB:128032; OMIM:192975
A; Map position: 2431-2432
C; Superfamily: integrin alpha-4 chain
C; Superfamily: integrin alpha-4 chain
C; Superfamily: integrin alpha-4 chain
E; 1-39/Domain: signal sequence #status predicted <SIG>F; 1-39/Domain: signal sequence #status predicted <SIG>F; 1-30/Domain: signal sequence #status predicted <SIG>F; 1-30/Domain: signal sequence #status predicted <SIG>F; 1-30/Domain: signal sequence #status predicted <MAT>
                                                                                                                                                                                                                                                                                                                                                       other int
                                                                                                                                                                                                                                                                                                                                                                                                                           A;Molecule type: mRNA
A;Residues: 1-1038 <TAK>
A;Crose-references: GB:X16983; EMBL:X15356; NID:g33945; PIDN:CAA34852.1; PID:g33946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     39,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        412 HIGLVAMFRONTGMWESNANV----KGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYY 467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             454
                                                                                                                                                                                              N'Alternate names: CD496; very late antigen-4 alpha chain; VLA-4 alpha chain C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 01-Dec-1989 #text_change 24-Sep-1999
C;Accession: S06046; A39355; D28018
R;Takada, Y.; Elices, M.J.; Crouse, C.; Hemler, M.E.
EMBO J. 8, 1361-1368, 1989
A;Title: The primary structure of the alpha(4) subunit of VLA-4: homology to A;Reference number: S06046; MUID:89356603; PMID:2788572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 272 GDAFRSEKSRQELNTVASKPPRD------HVFQINNFEALKT-----ION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 GKTCLEERDNQWLGVTLSRQPGENGSIVTCGHRWKNIFYIKNENKLPTGGCYGVPPDLRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181 ELSKRIAPCYQDYVKKFGENFA-----SCQAGISSFYTKDLIVMGAPGSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       357 DWAGGVFLY---TSKEKSTFINMTRVDSDMNDAYLGYA--AAIILRNRVQSLVLGAPRYQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       226 YWIGSLFVYNITINKYKAFLDKQNQVKF---GSYLGYSVGAGHFRSQHTTEVVGGAPQHE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    283 QIGKAYIF----SIDEKELNILHEMKGKKLGSYFGASVCAVDLNADGFSDL-LVGAPMQS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           468 EQTRGGQVSVCPLPRGQRARWQC-DAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -- FAI EGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     212;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1038;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                            -LPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RiRogen, G.D.; Birkenmeier, T.M.; Dean, D.C.
Proc. Natl. Acad. Sci. U.S.A. 88, 4094-4098, 1991
A/Ittle: Characterization of the alpha-4 integrin gene I
A, Reference number: A39355; MUID:91239513; PMID:2034655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10.8%; Score 635; DB 2; L. Ilarity 25.3%; Pred. No. 1.4e-35; Conservative 154; Mismatches 370;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Molecule type: protein
A;Residues: 40-50,'E',52-53 <TA2>
                                                                                                                                                                           integrin alpha-4 chain precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Gene: GDB: ITGA4; CD49D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches 249; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: DNA
A; Residues: 1-93 <ROS>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    311 QLREKI--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Accession: A39355
1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
  ઠે
                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
```

Query Match  10.7%; Score 630; DB 2; Length 1035;  Best Local Similarity 26.5%; Pred. No. 3.2e-35;  Matches 237; Conservative 160; Mismatches 332; Indels 164; Gaps 40;  Qy 331 EHEMSQEGPSAAITSNGPLLSTYSTWAGVELYTSKEKSTFINMT-RVDSDWNDAYLG 389	QY 390 YAAAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASL 445 	QY 446 CSVDVDSNGSTDLVLIGAPHYYEQTRGGOVSVCPLPRGQRARWQCDAVLYGEQGQPWGRF 505	QY 506 GAALTVLGDVNGDKLTDVALGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRL 565   ::     ::	Qy 566 QYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFEC 623 :	Qy 624 NDQVVKGKEAGEVRV-CLHVQKSTRDRLREGGIQSVVTYDLALDSGRPHSRAV 675 :	QY 676 FNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSBIVLRLNFSLVGTPLS 728	QY 729 AFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCL 777	QY 778 VVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASS 837 :   :	QY 838 TEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNK 897  1	Qy 898 TEFQLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQY 940 :		Qy 989 LPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFD 1039	1040 WYIKTSHN	Db 918 IYMILNT-BILKKO'SSSVIQFMSRAKVKVD'PALRVVEIAHGNPEEV 962 Qy 1085FEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDWM 1126	RESULT 15 integrin alpha chain SU2 - sea urchin (Lytechinus variegatus) integrin alpha chain SU2 - sea urchin (Lytechinus variegatus) C;Species: Lytechinus variegatus (variegated urchin) C;Date: 29-Oct.1999 #sequence_revision 29-Oct.1999 #text_change 21-Jan-2000 C;Accession: T31437 R;Hertzler, P.L.; McClay, D.R. Submitted to the EMBL Data Library, May 1998
587 TVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK 644  [	700 KLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQR-LFTALFPFEK 753  567 QAFMRKDVRDILTPIQIEAAYHLGPHVISKRSTEEFPPLQPILQQKKEKDIMKKTINFAR 626  DD	754 NCGNDNICQDDLSITF8FMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFF 807	808 PLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNIT 867 Q	TSENNMPRTNKTEFQLELPVKYAVYMVYTSHGVSTKYLN 925	926 FTASENTSRVMQHQYQVSNLGQRSLP-ISLVFLVPVRLNQTVIWDRPQVTFSENL 979  196 GSNDENBPETCMVEKANLFFHVINTGNSMAPNVSVEIMVPNSFSPQTDKLFNI 848	980SSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLK 1033  849 LDVQTTTGECHFENYQRVCALEQQKSAMQTLK 880  D	1034 GNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079	1080 TKVEPFEVPNP	1104 LLALITAALYKLGFPKRQ <sup>Y</sup> KDMMSE 1128 		00	hida, K.; Takah 3p21.3 in small		a novel partne	A; Reterence number: A49459; MUID:94064789; PMID:8245132 A; Accession: A49459 A; Status: preliminary A; Molecule type: mRNA A; Molecule type: mRNA A; Rosiodes; 30-1035 cPAL> A; Cross-references: GB.L24158 C; Superfamily: integrin alpha-4 chain C; Superfamily: integrin; metal binding; transmembrane protein E;1-27/Domain: ajgnal sequence #status predicted <sig></sig>

企

```
1006 NCSIAVCORIQCDIPFFGIQEFRAT-----LKGNLSFDWYIKTSHNHLLIVSTAFILF 1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ------VTFSENLSSTCHTKERLPSHSDFLAELRKAPVV 1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1060 NDSVFTLLPGQGAFVRSQTETKVE--PFEVPNP---------LP------ 1092
A; Description: Alpha SU2, a sea urchin integrin which binds laminin.
A; Reference number: 221035
A; Reference number: 221035
A; Accession: 131437
A; Accession: 131437
A; Molecule type: mRMP
A; Molecule type: mRMP
A; Residues; 1-1041
A; Residues; 1-1041
A; Experimental source: developmental stage embryo
A; Experimental source: developmental stage embryo
C; Function:
A; Description: binds laminin
C; Superfamily: integrin alpha-2b chain
                                                                                                                                                                                                                                                     41;
                                                                                                                                                                                                                                                                                                         923 YL-----LVFTASENTSRVMQHOYOV----SNLGORSLPIS-----LVFLVPV 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       336 QEGESAAITSNGP--LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDS----DMNDAYLG 389
                                                                                                                                                                                                                                                                                                                                                       390 YAAAI - - ILRNRVQSLVLGAPRYQHI - GLVAMFRONTGMWESNANVKGTQIGAYFGASLC 446
                                                                                                                                                                                                                                                                                                                                                                              297 VVDI-NNDTYDDLLVGAPMYMDDGPAIQ------RWEAGAVVVYLQNPDVGPGA 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    344 SNRLSLSSTLIGGQIRSRFGLSIASIGDSNQDGFNDVAIGAPYEGDDAGAVYIYHG-SAN 402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         814 RKVSTLONORSORSWRLAGESASSTEVSGALKSTSCSINHPIFPEN-----SEVTFNIT 867
                                                                                                                                                                                                                                                                                                                                                                                                                            447 SVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQ----- 498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                499 ------GOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGS 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GISPSHSQRIAGSKLS-PRLQYFGQSLSGGQDLTMDGLVDLTVGAQ--GHVLLLRSQPVL 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       504 RVKAIMEFNPREVARNVFÄCNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSV---- 658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ------VTYDHALDSG-RPHSRAVFNETKNSTRRQTQVLGL-TQTCETLKLQ 702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  498 CFTYTGNYLPDHIDISYTVTVDSGIIANRRAMFVDNDMSEITKTRRLAVSTQFCDPLRAY 557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 703 LPNCIEDPVSPIVLRLNFSLVGTPLSAFGN-----LRPVLAEDAQRLFTALFPFEK 753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          668 VRL----ERKANMDFSVTCSEDSD-----LRIITCDTGNPWVGKNILEFGLTLSTFQVS 717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              868 FDVDS-----KASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTK 922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               718 GDKDSIEFYFKAESENS- EDPNTLENNELNMTVPVTVDCTLKLLSASYPEIVMYSTQED 775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           754 NCGNDNICQDDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSY
                                                                                                                                                                                                                                                     Gapa
                                                                                                                                                                                                              Query Match 10.5%; Score 614.5; DB 2; Length 1041; Best Local Similarity 24.8%; Pred. No. 3.9e-34; Matches 236; Conservative 155; Mismatches 314; Indels 245;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961 RLNOTVIWDRPO-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         463 SLDATLNTEP-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     547
                                                                                                                                                                                                                                                                                                                                                       6 6 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6 B 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 6 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 6
```

Search completed: November 25, 2003, 14:22:04 Job time : 18.9579 secs

34 496 35 491.56 8.4 136 499.5 8.3 139 489 8.3 139 40 476 811 41 470 881 131 441 455 566 1385 666 138	RESULT 1 ITAM HUMAN ID TIAN HUMAN AC P112T5; DT 01-0TU-1989 (Rel. 11 DT 01-0CT-1996 (Rel. 34 DT 15-SEP-2003 (Rel. 42 DE INTEGRIN alpha M pre DE subunit) (CR-3 alpha GN ITGAM OR CRIA addresed		RN [2] RP SEQUENCE FROM N.A. RX MEDLINE=88190151; Pu RA Arnaout M.A., Remold RT "Molecular cloining or record and resion graph proc. Natl. Acad. Sci. RN [3] RP SEQUENCE FROM N.A. RX MEDLINE=88257215; Pu RX Arnaout M.A., Gupta RT "Amino acid sequence RT "Feceptor Mol (comple RT) T. Cell Biol. 106:21 RN [4] RN EDLINE=93123748; Pu RX MEDLINE=93123748; Pu RX MEDLINE=93123748; Pu RX MEDLINE=93123748; Pu RX MEDLINE=93123748; Pu RX MEDLINE=93123748; Pu RX MEDLINE=93123748; Pu RX MEDLINE=8909893; Pu RX Gound or crganization RT Genouic or ganization RT Genouic or ganization RY Gouldion."; Sci480- RX MEDLINE=8909893; Pu RX MEDLINE=8909893; Pu RX MEDLINE=8909893; Pu RX MEDLINE=8009893; Pu RX GONA sequence for t RT adherence receptor i RY Proc. Natl. Acad. Sc
5.1.6 Compugen Ltd.  Search time 9.17418 Seconds (without alignments) S828.244 Million cell updates/sec	s ters: 127863	results predicted by chance to have a to the score of the result being printed, of the total score distribution.  SUMMARIES  Description	P11215 homo sapien P0555 mus musculu P0702 homo sapien Q13349 homo sapien P20701 homo sapien P20701 homo sapien P24063 mus musculu Q60677 mus musculu P38570 homo sapien P54199 homo sapien P54199 homo sapien P54199 homo sapien P53710 homo sapien P17301 homo sapien P17301 homo sapien P18614 rattus norv Q00655 mus musculu P18614 rattus norv Q00651 mus musculu P18614 rattus norv Q00651 mus musculu P18614 rattus norv Q00551 homo sapien P1862 cricetidae Q62470 mus musculu P1688 mus musculu P26008 gallus gall P26009 gallus gall P26009 gallus gall Q61739 mus musculu Q61739 mus musculu Q61739 mus musculu
rsion 2003 0del 9:04	Gapext 0.5 47026705 residues ng chosen parameter 0000 h 04 h 04 t 45 qummaries	results pred to the scor of the total SUMMARIES	
	H 5 W 5 044	E BBJ	11152 111633 111643 111642 111643 111643 111643 111643 111643 111643 111643 111644 11164 111644 11644 11644 11644 11644 11644 11644 11644 11644 11644 11644 11644 1
prote  No  US  Ore: 58	Gapop 12786 of hits eq length eq length ing: Mini	Pred No. is the score greater thand is derived by the Score Guery Score Match	\$46.5 \$44.5 \$44.5 \$44.5 \$44.5 \$44.5 \$44.5 \$44.5 \$44.5 \$44.5 \$44.5 \$44.5 \$44.5 \$44.5 \$45.5 \$4
OM protein Run on: Title: Perfect so Sequence: Scoring tal	Searched: Total number Minimum DB B Maximum DB COSt.	Database Pre sco and Result No.	222 222 223 223 223 223 223 223 233 233

P12080 drosophila 024247 drosophila	OggumO mus musculu PO8514 homo sapien	P53708 homo sapien P11578 cavia porce	Q13683 homo sapien Q63258 rattus norv	P34446 caenorhabdi 003600 caenorhabdi	O44386 drosophila Q9w1m8 drosophila
ITA2_DROME	ITAB_MOUSE ITAB_HUMAN	ITAB_HUMAN ITAM_CAVPO	ITA7_HUMAN ITA7_RAT	PAT2_CAEEL INA1_CAEEL	ITA3_DROME ITA5_DROME
44	п п				77
1396	1033	1025	1181	1226	1115
60 60 4. 4.	8.8 4.6	8 8 6. 6.	8.1 9.0	7.9	7.2
496 491.5	491 489.5	489 486	476	445.5	424 385
3.4	36 37	3 B	4 4 1	42	4 4 5

## ALIGNMENTS

```
MEDLINE=98226734; PubMed=9560195;
A OXVIG C., Springer T.A.;
A OXVIG C., Springer T.A.;
TExperimental support for a beta-propeller domain in integrin alpha-
TEXPERIMENTAL Acad. Sci. U.S.A. 95.4870-4875(1998)
L. PUNCTION: INTEGRIN ALPHA-M/BETA-2 IS IMPLICATED IN VARIOUS
ADHESIVE INTERACTIONS OF MONOCYTES, MACROPHAGES AND GRANULOCYTES
C. T. IS IDENTICAL WITH CR-3, THE RECEPTOR FOR THE ICAB FRAGMENT OF
THE THIRD COMPLEMENT COMPONENT IT PROBABLY RECOGNIZES THE R-G-D
PEPTIDE IN CAB. INTEGRIN AMPLHA-M/BETA-2 IS ALSO A RECEPTOR FOR
C. FIBRINGEN, FACTOR X AND ICAMI. IT RECOGNIZES PL AND P2 PEPTIDES
C. PIBRINGEN GAMMA CHAIN.
C. SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-M
ASSOCIATES WITH BETA-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -!- DOMAIN: THE INTEGRIN I DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
-!- SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
-!- SIMILARITY: Contains 1 VWFA domain.
-!- SIMILARITY: Contains 7 FG-GAP repeats.
-!- DATABASE: NAME=PROW, NOTE=CD guide CD11b entry;
WWW="http://www.ncbi.nlm.nih.gov/prow/cd/cd11b.htm".
                                                                                                                                                                                                                                                                                                                                                                                                                      X-RAY CRYSTALLOGRAPHY (1.7 | ANGSTROMS) OF 148-331.
MEDLINE=9517458; PubMed=7867070;
Le J.O., Rieu P., Arnaout J., Liddington R.;
"Crystal structure of the A domain from the alpha subunit of integrin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               X-RAY CRYSTALLOGRAPHY (2.0 ANGSTROMS) OF 148-334.
MEDLINE=96363671; PubMed=8747460;
Lee J.O., Bankston L.A., Arnaout M.A., Liddington R.C.;
"Two conformations of the integrin A-domain (I-domain): a pathway for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      X-RAY CRYSTALLOGRAPHY (2.7 ANGSTROMS) OF 148-337.
MEDLINE=98162595; PubMed=9687375;
Baldwin E.T., Sarver R.W., Bryant G.L. Jr., Curry K.A.,
Fairbanks M.B., Finzel B.C., Garlick R.L., Heinrikson R.L.,
Horton N.C., Kelley L.L., Mildner A.M., Moon J.B., Mott J.E.,
Mutchler V.T., Tomich C.S., Watenpaugh K.D., Wiley V.H.;
"Cation binding to the integrin CDllb I domain and activation model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUBCELLULAR LOCATION: Type I membrane protein.
TISSUE SPECIFICITY: FREDOMINANTLY EXPRESSED IN MONOCYTES AND
                                                                                                                                                                                                                                                                                                  MEDLINE=87076671; PubMed=3539202;
Pierce M.W., Remold-O'Donnell E., Todd R.F. III, Arnaout M.A.;
"N-terminal sequence of human leukocyte glycoprotein Mol:
conservation across species and homology to platelet IIb/IIIa.";
Biochim. Biophys. Acta 874;368-371(1986).
                                                          gene directs myeloid-specific and
                                                                                                                                                                          MEDLINE=92144986; PubMed=1346576;
Pahl H.L., Rosmarin A.G., Tenen D.G.;
"Characterization of the myeloid-specific CD11b promoter.";
Blood 79:865-870(1992).
                                   Shelley C.S., Arnaout M.A., The promoter of the CD1D gene directs myeloid speedevelopmentally regulated expression.", proc. Natl. Acad. Sci. U.S.A. 88:10525-10529(1991).
SEQUENCE OF 1-9 FROM N.A.
MEDLINE=92073318; Pubmed=1683702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Structure 3:1333-1340(1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Structure 6:923-935(1998).
                                                                                                                                          SEQUENCE OF 1-9 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cell 80:631-638(1995).
                                                                                                                                                                                                                                                                                   SEQUENCE OF 17-31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GRANULOCYTES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (CD11b/CD18).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   activation?'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         assessment.
```

This, SWISS-PROT entry is copyright. It is produced through a collaboration

```
between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EXTRACELLULAR (POTENTIAL)
POTENTIAL.
CYTOPLASMIC (POTENTIAL).
FG-GAP 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GO; GO:0008305; C:integrin complex; TAS. GO:0004895; F:cell adhesion receptor activity; InterPro; IPR000413; Integrin_alpha.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Integrin; Cell adhesion; Receptor; Glycoprotein;
Signal; 3D-structure; Repeat; Magnesium; Calcium
SIGNAL
CHAIN 17 1152 INTEGRIN ALPHA-M.
                                                                                                                                                                  JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
JOINED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF01839; FG-GAP; 3.
Pfam; PF00357; integrin_A; 1.
Pfam; PF00092; vwa; 1.
PRINTS; PR01185; INTEGRINA.
PRINTS; PR00453; VWPADOMAIN.
SMART; SM00191; Int_alpha; 4.
SMART; SM00327; VWA; 1.
                                                                                 EMBL; J03925; AAAS9544.1; --
EMBL; M10044; AAAS491.1; --
EMBL; J04145; AAAS993.1; --
EMBL; SS2127; AAB24821.1; --
EMBL; SS2152; AAB24821.1; JOINE
EMBL; SS5153; AAB24821.1; JOINE
EMBL; SS5153; AAB24821.1; JOINE
EMBL; SS5155; AAB24821.1; JOINE
EMBL; SS2157; AAB24821.1; JOINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; W76724; AAA58410 1; EMBL; M8477; AAA51960.1; PDB; A31108; RWHUIB. PDB; IA8X; 17-JUN-98. PDB; IBHO; 18-NOV-98. PDB; IIDN; 25-NOV-98. PDB; IIDN; 25-NOV-98. PDB; IIDN; 26-NOV-98. PDB; IIDN; 26-NOV-98. PDB; IIDN; 26-NOV-98. PDB; IIDN; 26-NOV-98. PDB; IIDN; 26-NOV-98. PDB; IIDN; 27-NOV-98. PDB; IIDN; 27-NOV-98. PDB; IIDN; 27-NOV-98. PDB; IIUU; 07-AUG-02. Genew; HGNC: 6149; ITGAM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; S52222; AAB24821.1;
EMBL; S52226; AAB24821.1;
EMBL; M76724; AAAS8410.1;
                                                                                                                                                                                                      AAB24821.1;
AAB24821.1;
AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAA51960.1;
                                                                                                                                                                                                                                                      AAB24821.1;
AAB24821.1;
                                                                                                                                                                                                                                                                              AAB24821.1;
                                                                                                                                                                                                                                                                                                   AAB24821.1;
AAB24821.1;
                                                                                                                                                                                                                                                                                                                                     AAB24821.1;
AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                              AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                               AAB24821.1;
                                                                                                                                                                                             AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1152
1104
1128
1152
                                                                                                                                                                                                                                                                                                                                                                                   EMBL; S52212; A.
EMBL; S52213; A.
EMBL; S52216; A.
EMBL; S52216; A.
EMBL; S52219; A.
                                                                                                                                                                                                                                                                                                                                                                                                                                               $52221;
                                                                                                                                                                                                                                                                                                                                                   $52191;
                                                                                                                                                                                                                                                                                                                                                                           EMBL; S52203;
                                                                                                                                                                                                                                                                                                                                                               S52192;
                                                                                                                                                                                              S52159;
                                                                                                                                                                                                                                                         852169;
                                                                                                                                                                                                                                                                                                      S52180;
                                                                                                                                                                                                                                                                                                                 $52181;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TRANSMEM
DOMAIN
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                   EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                     EMBL;
                                                                                                                                                                                                                                                                             EMBL;
                                                                                                                                                                                                                                                                                          EMBL;
                                                                                                                                                                                                                                                                                                                                                    EMBL;
                                                                                                                                                                                                                                                                                                                                                               EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL;
```

```
FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GRANULOCYTES
                                                                                             ITAM MOUSE
                                                 1096
                                 1081
                                                                                                                                                                                                            SEQUENCE
1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This
                                                                                                                                                                                                                                                                           2
                                                                                                      용
                                                셤
                                                                                             9
                                ઠે
ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RLNOTVIWDRPQVTFSENISSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                         1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               975
                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                               555
                                                                                                                                                                                                                                                                                                                                                                009
                                                                                                                                                                                                                                                                                                                                                                                  615
                                                                                                                                                                                                                                                                                                                                                                                                                   675
                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                            120
                                                                                             136
                                                                                                               180
                                                                                                                               196
                                                                                                                                                                   256
                                                                                                                                                                                    300
                                                                                                                                                                                                     316
                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                       376
                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                         436
                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                            496
                                                                                                                                                                                                                                                                                                                                                                                                  PVLRVKAIMEFNPREVARNVFECNDOVVKGKEAGEVRVCLHVOKSTRDRLREGOIOSVVT 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                      735
                                          9
                                                          92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTWDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                      RIQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                RIHFTEKEFONNDNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                             TDGEKFGDPLGYEDVI PRADEREGVIRVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                    QNTGMMESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                       YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSP1VLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                    FNLDTENAMTFQENARGFGQSVVQLQSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                            RLOVPVEAVNMSLGLSLAATTSPPOLLACGPTVHOTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                               FPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                      FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                            RIHFTFKEFONNPNPRSLVKPITOLLGRTHTATGIRKVVRELFNITNGARKNAFKILVVI
                                                                                                                                                                                    TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                       NFEALKTIONOLREKIFAIEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                       317 NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                        GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                        GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                             PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                     YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                          FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                           QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                              PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                          Gaps
        Length 1152;
                         ;
                         Indels
       DB 1;
                         ;
         5846.5;
No. 0;
                       7; Mismatches
          Score
                 Pred.
         99.5%;
                         Conservative
                 Similarity
               Best Local Sim
Matches 1128;
                                                                                                                                                                                                                                                                                                                                                                                                                                     199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                     257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               916
                                          н
                                                                            61
                                                                                             11
                                                                                                               121
                                                                                                                                                 181
                                                                                                                                                                   197
                                                                                                                                                                                    241
                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                         377
                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                             437
                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                               497
                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                  556
                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                    919
                                                                                                                                                                                                                                                                                                                                                                                                                                                      919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  916
        Match
                                                                                                                                                                                                                8 6 8 6
                                                                                                                                                                                                                                                                                      8 6 8 6
                                                                                                                                                                                                                                                                                                                                                            상
음
                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                    6 B 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                           ઠે
                                                          셤
                                                                            ò
                                                                                          В
                                                                                                             ઠે
                                                                                                                           임
                                                                                                                                               ò
                                                                                                                                                              g
                                                                                                                                                                                  ò
                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

```
Springer T.A., Teplow D.B., Dreyer W.J.;

Springer T.A., Teplow D.B., Dreyer W.J.;

Springer T.A., Teplow D.B., Dreyer W.J.;

RT "Sequence homology of the LFA-1 and Mac-1 leukocyte adhesion

RT glycoproteins and unexpected relation to leukocyte interferon.";

RL GALUE 314:540-542(1985).

C. I FUNCTION: INTERARIN ALPHA-M/BETA-2 IS IMPLICATED IN VARIOUS

ADHESIVE INTERACTIONS OF MONOCYTES, MACROPHAGES AND GRANULOCYTES.

C. THE THIRD COMPLEMENT COMPONENT. IT PROBABLY RECOGNIZES THE R-G-D PEPTIDE IN C3B. INTEGRIN ALPHA-M/BETA-2 IS ALSO A RECEPTOR FOR THE THIRD COMPLEMENT COMPONENT. IT RECOGNIZES PI AND P2 PEPTIDES.

C. OF FIBRINOGEN FACTOR X AND ICAMI. IT RECOGNIZES PI AND P2 PEPTIDES.

C. OF FIBRINOGEN GAWAM CHAIN. ALPHA-M/BETA-2 PLAY A CRITICAL ROLE IN MAST CELL DEVELOPMENT AND IN IMMUNE COMPLEX-MEDIATED.

C. GLOMERULONEPHRITIS. MICE EXPRESSING A NULL MUTATION OF THE ALPHA-M RESPONSE TO A IMPAIRED DEGRANULATION AND PHAGOCYTOSIS, EVENTS THAT APPARENTLY ACCELERATE APOPTOSIS IN NEUTROPHILS. THESE MICE DEVELOP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SWISS-PROT entry is copyright. It is produced through a collaboration
1080
                                   1036 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSQTET 1095
                                                                                                                                            1137
                                                                                                                                                                               -!- DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
-!- SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
-!- SIMILARITY: Contains 1 VWFA domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-NOV-1988 (Rel. 09, Created)
01-FEB-1991 (Rel. 17, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Integrin alpha-M precursor (Cell surface glycoprotein MAC-1 alpha subunit) (CR-3 alpha chain) (CD11b) (Leukocyte adhesion receptor MO1). ITGAM.
FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Amino acid sequence of the murine Mac-1 alpha chain reveals homology with the integrin family and an additional domain related to von
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE OF 11-45 FROM N.A.
STRAIN=BALB/C; TISSUE=Spleen;
MEDLINE=86287312; PubMed=2942940;
Sastre L., Roman J.M., Teplow D.B., Dreyer W.J., Gee C.E.,
Larson R.S., Roberts T.M., Springer T.A.;
A partial genomic DNA clone for the alpha subunit of the mouse complement receptor type 3 and cellular adhesion molecule Mac-1.";
Proc. Natl. Acad. Sci. U.S.A. 83:5644-5648(1986).
                                                                                                                                            KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Euteleostomi;
Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBCELLULAR LOCATION: Type I membrane protein.
TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN MONOCYTES AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA CHAIN. ALPHA-M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Craniata; Vertebrata; E
Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                          $
                                                                                                                                                                                                                                                                                                                                                                                                          1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE OF 17-28.
MEDLINE=85188276; Pubmed=3887182;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=88312584; PubMed=3044779;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus (Mouse).
Bukaryota, Metazoa, Chordata,
Mammalia, Butheria, Rodentia,
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ASSOCIATES WITH BETA-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBO J. 7:1371-1378 (1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          - ! - SUBCELLULAR LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;
```

```
. 9/9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                        17
                                                                                                      121
                                                                                                                                              137
                                                                                                                                                                                       181
                                                                                                                                                                                                                               197
                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                257
                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                   317
                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                  ઠે
                                                                                                                                     셤
                                                                                                                                                                             े
                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                            ठ
                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQE1VAANQRGSLYQCDYSTGSCEP1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                       EMBL; X07640; CAA30479.1; -.

R EMBL; M14293; AAA39484.1; -.

R HSSP, P11215; 1A8A.

MGD; MG1:96607; Itgam.

InterPro; IPR000413; Integrin_alpha.

R InterPro; IPR00135; VWF_A.

R Ffam; PF01895; FG-GAP; 3.

R PRINTS; PR01185; INTEGRINA.

R PRINTS; PR00453; VWFADMAIN.

R SWART; SM00191; Int_alpha; 5.

SWART; SM00192; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00244; VWFA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INTEGRIN ALPHA-M.
EXTRACELLULAR (POTENTIAL)
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CYTOPLASMIC (POTENTIAL)
FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  178DB988AECB0343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 76.1%; Score 4470; DB 1; 1
Best Local Similarity 73.9%; Pred. No. 4.5e-295;
Matches 841; Conservative 146; Mismatches 149;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GFFKR MOTIF.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VWFA.
FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 POTENTIAL. POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
BY SIMILAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        94,
80 980
14 994
2 1022
1045
1051
1076
1 127480 M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Signal; Calcium; Repeat.
SIGNAL 1 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1153
1105
1129
1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           994
1022
1045
1051
1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
DISULFID
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHAIN
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CA_BIND
CA_BIND
SITE
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REPEAT
REPEAT
REPEAT
CA BIND
CA BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
REPEAT
BOMAIN
REPEAT
REPEAT
    SOLUTION OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF THE STANDARD OF TH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ठ
```

```
VRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         975
                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                          496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                735
                                                                                                                                                                                                                                                                                                                                                                                                               555
                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                               376
                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                    436
120
                        136
                                                   180
                                                                             196
                                                                                                                                                             300
                                                                                                                                                                                        316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                         PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YDLALDSGRPHSRAVFNETKNSTRROTOVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRL-ACESASSTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   POLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                       PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLP
                                                                                                                                                                                                                                                                                                                                                                                                     840 VSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTE
              PLQVPPEAVNMSLGLSLAVSTVPQQLLACGPTVHQNCKENTYVNGLCYLFGSNLLRPPQQ
                                                                   TDGEKFGDPLGYEDVI PEADREGVIRYVI GVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                              NFEALKTIQNOLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                  GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                        RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLPGSNLRQQPQK
                                                                                                                        FPEALRGCPOEDSD1AFLVDGSGS11PHDFRRAKEF1STVMEQLKKSKTLFSLMQYSEEF
                                                                                                          RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
```

ITAX HUMAN P20702;

RESULT 3 ITAX HUMAN

--

```
61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 FPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20 FNLDTEELTAFRVDSAGFGDSVVQYANSWVVGAPQKITAANQTGGLYQCGYSTGACEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             80 GLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      138 LPVSRQECPRQEQDIVFLIDGSGSISSRNFATWMNFVRAVISQFQRPSTQFSLMQFSNKF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                      PRINTS; PRO1185; INTEGRINA.
PRINTS; PRO145; VWFADCMAIN.
SMART; SM00191; Int_alpha; 5.
SMART; SM00191; Int_alpha; 5.
PROSITE; PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
Integrin; Cell adheaion; Receptor; Glycoprotein; Transmembrane;
Signal, Magnesium; Calcium; Repeat; 3D-structure.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1163;
           PIR, A36584; WHULL.

PDB; IN3Y; 18-FEB-03.

Genew; HQMC:6152; ITGAX.

MIM; 151510; ---

GO; GO:0008305; C:integrin complex; TAS.

GO; GO:0004895; F:cell adhesion receptor activity; TAS.

GO; GO:0004895; F:receptor activity; TAS.

GO; GO:0004897; F:receptor activity; TAS.

GO; GO:0007397; P:histogenesis and organogenesis; TAS.

InterPro; IPR000413; Integrin_alpha.

InterPro; IPR00135; VWF.A.

Pfam; PP01839; FG-GAP; 3.

Pfam; PP01839; FG-GAP; 3.

Pfam; PP00357; integrin_A; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6C4E19CC3F62A473 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                            EXTRACELLULAR (POTENTIAL)
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CYTOPLASMIC (POTENTIAL)
FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 59.0%; Score 3469; DB 1; I Best Local Similarity 61.0%; Pred. No. 3.8e-227; Matches 689; Conservative 141; Mismatches 293;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GFFKR MOTIF.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

N-LINED (GLONAC.)

N-LINKED (GLONAC.)

N-LINKED (GLONAC.)

N-LINKED (GLONAC.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -> A (IN REF. 2)
-> D (IN REF. 2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-LINKED (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                              INTEGRIN ALPHA-X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
POTENTIAL.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL
EMBL; M29486; AAA51620.1; JOINED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  127885 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                            1163
1107
1128
1163
87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           453
517
576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
89
392
697
735
899
939
490
490
756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      474
538
601
1135
76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             126
712
777
777
863
1022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               756 75
1163 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                            CHAIN
DOMAIN
TRANSMEM
DOMAIN
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DISULFID
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REPEAT
REPEAT
CA BIND
CA BIND
CA BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DISULFID
 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as ino as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@lab-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=81167596; PubMed=1549901;
MEDLINE=81167596; PubMed=1549901;
Miller L.J., Wiebe M., Springer T.A.;
Miller L.J., Wiebe M., Springer T.A.;
Muller L.J., Wiebe M., Springer T.A.;
Muller L.J., Wiebe M., Springer T.A.;

"Purification and alpha subunit N-terminal sequences of human Mac-1
and p150,95 leukocyte adhesion proteins.";
J. Immunol. 138 :2381-2383 [1987).
-!- FUNCTION: INTEGRIN ALPHA-X/BETA-2 IS A RECEPTOR FOR FIBRINOGEN. IT
RECOGNIZES THE SEQUENCE G-P-R. IN FIBRINOGEN. IT MEDIATES CELL-CELL
INTERACTION DURING INFLAMMATORY RESPONSES. IT IS ESPECIALLY
IMPORTANT IN MONOCYTE ADHESION AND CHEMOTAXIS.
-!- SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-X
ASSOCIATES WITH BETA-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
SIMILARITY: CONtains 1 VPA domain.
SIMILARITY: COntains 7 FG-GAP repeats.
DATABASE: NAME-PROW; NOTE-CD guide CD11c entry;
WWW="http://www.ncbi.nlm.nih.gov/prow/cd/cd11c.htm".
                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
MEDLINE=8816645; Pubwed=3327687;
Corbi A.L., Miller.J., O'Connor K., Larson R.S., Springer T.A.;
Corbi A.L., Miller Drimary structure of the alpha subunit of
a leukocyte adhesion glycoprotein, p150,95.";
EMBO J. 6:4023-4028(1987).
                                                                                 01-FBB-1991 (Rel. 17, Created)
01-FBB-1991 (Rel. 17, Last sequence update)
15-SBP-2003 (Rel. 42, Last annotation update)
Integrin alpha-X precursor (Leukocyte adhesion glycoprotein p150,95
alpha chain) (Leukocyte adhesion receptor p150,95) (CD11c) (Leu MS).
ITGAX OR CD11C.
                                                                                                                                                                                                    Homo sapiens (Human).
Sukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBCELLULAR LOCATION: Type I membrane protein.
TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN MONOCYTES AND
                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
MEDLINE=90153906; PubMed=2303426;
Corbi A.L., Garcia-Aguilar J., Springer T.A.;
"Genomic structure of an integrin alpha subunit, the leukocyte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Corbi A.L., Garcia-Aguilar J., Springer T.A., J. Biol. Chem. 265:12750-12751(1990).
                                                       PRT; 1163 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -, NOT ANNOTATED CDS.
AAA5.620.1; ALT SEQ.
AAA5.1620.1; JOINED.
AAA5.1620.1; JOINED.
AAA5.620.1; JOINED.
AAA5.620.1; JOINED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . Biol. Chem. 265:2782-2788(1990)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAA68283.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; | M81695; AAA59180.1; -
                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         p150,95 molecule.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GRANULOCYTES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; |M29483; P
EMBL; |M29484; P
EMBL; |M29485; F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; |M29165;
EMBL; |M29487;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 M29482;
```

ERRATUM

4

Gaps

. 9

9 79 137

EMBL;

```
1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1094
                                                                                                                                                                                                  540
                                                                                                                                                                                                                                        009
                                                                                                                                                                                                                                                           616
                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                  919
                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                         736
                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                 796
                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                         854
                                                                                                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       974
                                                                                                                   420
                                                                                                                                                          480
                                                                                                                                                                             497
                                                                                                                                                                                                                     556
                                    300
                                                                                              377
                                                                                                                                     437
                257
                                     TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                               GAFLYPPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVQSLVLGAPRYQHTGKAVIFT
                                                                                                                                                                   HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                     SIVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                        GPREFNVTVTVRNDGEDSYRIQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                              SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                        QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OLELPVKYAVYTVVSSHEOFTKYLNFSESEEKESHVAMHRYQVNNLGQRDLPVSINFWVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PSFSVQEELDFTLKGNLSFGWVRQILQKKVSVVSVAEITFDTSVYSQLPGQEAFMRAQTT
                                                                                                                   GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                          ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                  PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                               PVLRVKAIMEFNPREVARNVFECNDOVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                         SNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEGOKOGLRSLHLTCDSAPVG--
         NFBALKTIQNQLREKI FAI EGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
RIHFTFKEFONNPNPR$LIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILLILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1020
                                                                                                                                      378
                                                                                                                                                                              438
                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                           677
                                                                                                                                                                                                                                                                                                                                                                                  737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  855
                                     241
                                                         258
                                                                            301
                                                                                                                   361
                                                                                                                                                          421
                                                                                                                                                                                                  481
                                                                                                                                                                                                                      498
                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                          797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                      දු පු
                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                    8
                                                       셤
                                                                          à
                                                                                           g
                                                                                                                 ò
                                                                                                                                  g
                                                                                                                                                     ò
                                                                                                                                                                        g
                                                                                                                                                                                             8 8 8
                                                                                                                                                                                                                                                       8 S
                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      õ
```

a human

gene-encoding

T.A.; novel

Z.

FROM

910-1125

467-537; 571-602; 633-666; 788-834 AND

Q

SEQUENCE

MEDLINE=96257216; PubMed=8666289; Wong D.A., Davis E.M., LeBeau M., Springer "Cloning and chromosomal localization of a

2-Integrin alpha subunit."

"Clon beta Gene

Ξ

171:291-294 (1996). INTERACTION WITH VCAM1

Noti J.D., Johnson A.K., Dillon J.D.;
"Structural and functional characterization of the leukocyte integrin
gene CD11d. Essential role of Sp1 and Sp3.";
J. Biol. Chem. 275:8959-8969(2000)

MEDLINE=20187620; PubMed=10722744;

OF 1-235 FROM N.A.

SEQUENCE

[mmunity 3:683-690(1995)

D.E., Gallatin W.M.; leukointegrin, alpha d beta 2, binds preferentially to ICAM-

TISSUE-Spleen;
MEDLINE-96111956; PubMed-8777714;
Van der Vieren M., Le Trong H., Wood C.L., Moore P.F.,
A., Moore P.F.,
A., Moore P.F.,
A., Moore P.F.,
A., Moore P.F.,
A., Moore P.F.,
A., Moore P.F.,
A., Moore P.F.,
A., Moore P.F.,

St John T.,

Euteleostomi;

Craniata; Vertebrata; E Catarrhini; Hominidae;

Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;

NCBI\_TaxID=9606;

FROM N.A.

SEQUENCE

Homo sapiens (Human)

(ADB2)

(CD11d)

â

(Leukointegrin alpha

Integrin alpha-D precursor

MEDLINE=99059842; PubMed=9841932; Grayson M.H., Van der Vieren M., Sterbinsky S.A., Michael Gallatin W., Hoffman P.A., Staunton D.E., Bochner B.S.; alphadbeta2 integrin is expressed on human eosinophils and functions as an alternative ligand for vascular cell adhesion molecule 1

Hoffman P.A.,

INTERACTION WITH VCAMI.
MEDLINE=99370002; PubMed=10438935;
Van der Vieren M., Crowe D.T., Hockstra D., Vazeux R., Hoffman Grayson M.H., Bochner B.S., Gallatin W.M., Staunton D.E.;
"The leukocyte integrin alpha D beta 2 binds VCAM-1: evidence binding interface between I domain and VCAM-1.";

J. Immunol. 163:1984-1990(1999)
-!- FUNCTION: INTEGRIN ALPHA-D/

Exp. Med. 188:2187-2191(1998)

(VCAM-1)

2

ø

for

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ASSOCIATES WITH BETA-2.
SUBCELLULAR LOCATION: Type I membrane protein.
IISSUE SPECIFICITY: EXPRESSED MODERATELY ON MYELOMONOCYTIC CELL
LINES AND SUBSETS OF PER PHERAL BLOOD LEUKOCYTES AND STRONGLY ON
TISSUE-SPECIALIZED CELLS, INCLUDING MACROPHAGES FOAM CELLS WITHIN
ATHEROSCLEROYIC PLAQUES, AND ON SPIENIC RED PULP MACROPHAGES.
DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS
WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FUNCTION: INTEGRIN ALPHA-D/BETA-2 IS A RECEPTOR FOR ICAM3 AND VCAM1. MAY PLAY A ROLE IN THE ATHEROSCLEROTIC PROCESS SUCH AS CLEARING LIPOPROTEINS FROM PLAQUES AND IN PHAGOCYTOSIS OF BLOODBORNE PATHOGENS, PARTICULATE MATTER, AND SENESCENT ERYTHROCYTES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY. SIMILARITY: Contains 1 VWFA domain. SIMILARITY: Contains 7 FG-GAP repeats.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; U37028; AAB38547.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FROM THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBUNIT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ++
```

sequence update) annotation update)

013349; Q15575; Q15576; 16-0CT-2001 (Rel. 40, Created) 16-0CT-2001 (Rel. 40, Last energe) 28-FEB-2003 (Rel. 41, Last energe)

₹ 1162

STANDARD;

ITAD HUMAN

RESULT ITAD HU ID IT ID IT AC Q1 DT 16 DT 16

LT 4 HUMAN

196

300

360

420 436

```
VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HGTSGSGISPSHSQRIAGSKLSPRLQYPCQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600
                                              RLQVPVEAVMMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
   795 SSLELNVIVTVWNAGEDSYGTVVSLYYPAGLSHRRVSGAQKQPHQSALRLACETV-PTED
                                                                                                        PPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                        TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                      301 NFEALKTIQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                         QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRGORARWOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SLVREPIPSPONLRPVLAVGSQDLFTASLPFEKNCGQDGLCEGDLGVTLSFSGLQTLTVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QLELPVKYAVYMVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18 PLHIRPEAVNMSLGLTLAASTNGSRLLACGPTLHRVCGENSYSKGSCLLLGSRW-EIIQT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                               RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1020
                                                61
                                                                                                                                                               181
                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                             437
                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960
                                                                        원
                                                                                                                           g
                                                                                                                                                              ઠ
                                                                                                                                                                                    유
                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                              ठे
                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                       (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .,
œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18.0%; Score 3411; DB 1; Length 1162; S9.4%; Pred. No. 3.38-223; Conservative 166; Mismatches 284; Indels 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        F296A1A35455D77D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINED GLONAC...) (
N-LINED GLONAC...) (
N-LINED GLONAC...) (
N-LINED GLONAC...) (
N-LINED GLONAC...) (
N-LINED GLONAC...) (
N-LINED GLONAC...) (
N-LINED GLONAC...) (
N-LINED GLONAC...) (
N-LINED GLONAC...) (
N-LINED GLONAC...) (
N-LINED GLONAC...) (
N-LINED GLONAC...) (
N-LINED GLONAC...) (
N-LINED GLONAC...) (
N-LINED GLONAC...) (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MISSING (IN REF. 2).
GHPW -> ATP (IN REF. 2)
L -> V (IN REF. 2).
V -> A (IN REF. 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 POTENTIAL.
POTENTIAL.
POTENTIAL.
GFFKR MOTIF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
EMBL; U40274; AAB60634.1; --
EMBL; U40275; AAB60635.1; --
EMBL; U40277; AAB60636.1; --
EMBL; U40277; AAB60637.1; --
EMBL; U40279; AAB60638.1; --
EMBL; U40279; AAB60638.1; --
EMBL; U40279; AAB60638.1; --
EMBL; U40279; AAB60638.1; --
HSSP; P11215; 1A8X.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      126885
                                                                                                                    HGNC: 6146; ITGAD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                957
1046
500
510
515
825
825
1162 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            67
106
655
769
1023
1023
87
87
87
87
87
87
87
87
87
87
87
                                                                                                                                   602453;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               671;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REPEAT
CA_BIND
CA_BIND
CA_BIND
CA_BIND
CA_BIND
SITE
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
CARBOHYD
CARBOHYD
CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REPEAT
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
```

540

556

616 999 720 734 780

674

840

853 900

794

959

972

480

496

```
DISULFID
DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHAIN
DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REPEAT
REPEAT
CA BIND
CA BIND
CA BIND
CA BIND
SITE
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REPEAT
DOMAIN
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REPEAT
                                                                                                                                                                                                                                                                       PDB;
 MEDLINE=99425.70; PubMed=10493829; Loftus B.J., Kim U.-J., Sneddon V.P., Kalush F., Brandon R., Loftus B.J., Kim U.-J., Sneddon V.P., Kalush F., Brandon R., Evhrmann J., Mason T., Crobby M.L., Barnstead M., Cronin L., Deslattes Mays A., Cao Y., Xu R.X., Kang H.-L., Mitchell S., Eichler E.E., Harris P.C., Venter J.C., Adams M.D.; Genome duplications and other features in 12 Mb of DNA sequence from human chromosome 16p and 16q."; Genomics 60:295-308(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         X-RAY CRYSTALLOGRAPHY (2.6 ANGSTROMS) OF 153-334.

MEDLINE=99425288; PubMed=10493852;

Kallen J., Welzenbach K., Ramage P., Geyl D., Kriwacki R., Legge G.,
Cottens S., Weitz-Schmidt G., Hommel U.;

Structural baeis Gro LFA-1 inhibition upon lovastatin binding to the
CD11a I-domain.";

J. MOL. Biol. 292:1-9(1999).

I-PUNCTION: INTEGRIN ALPHA-L/BETA-2 IS A RECEPTOR FOR ICAMI, ICAM2,
ICAM3 AND ICAM4. IT IS INVOLVED IN A VARIETY OF IMMUNE PHENOMENA
INCLUDING LEUKOCYTE-ENDOTHELIAL CELL INTERACTION, CYTOTOXIC T-CELL
INCLUDING LEUKOCYTE-ENDOTHELIAL CELL INTERACTION, CYTOTOXIC T-CELL
                                                                                                                                                                                                                                           SEQUENCE FROM N.A. (ISOFORM 1), AND PARTIAL SEQUENCE.
MEDLINE=89139587; PubMed=2537322;
Larson R.S., Corbi A.L., Berman L., Springer T.;
"Primary structure of the leukocyte function-associated molecule-1
alpha subunit: an integrin with an embedded domain defining a protein superfamily.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIATED KILLING, AND ANTIBODY DEPENDENT KILLING BY GRANULOCYTES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qu A., Leahy D.J.;
"Crystal structure of the I-domain from the CD11a/CD18 (LFA-1, alpha
L beta 2) integrin.";
                                                            TTAL HUMAN STANDARD; PRT; 1170 AA.
P20701; 04746;
01-FEB-1991 (Rel. 17, Created)
01-FEB-2992 (Rel. 32, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
Integrin alpha-L precursor (Leukocyte adhesion glycoprotein LFA-1
alpha chain) (Leukocyte function associated molecule 1, alpha chain)
(CD11a)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              X-RAY CRYSTALLOGRAPHY (1.8 ANGSTROMS) OF 153-335, AND REVISION TO MEDLINE=96036067; Pubmed=7479767;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qu.A., Leahy D.J.;
The role of the divalent cation in the structure of the I domain
from the CD11a/CD18 integrin.";
Structure 4:931-942(1996).
                                                                                                                                                                        Homo sapiens (Human).

Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-L
1091 MVLEEDEVYNAIPIIMGSSVGALLLLALITATLYKLGFFKRHYKEMLED 1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Proc. Natl. Acad. Sci. U.S.A. 92:10277-10281(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IsoId=P20701-2; Sequence=VSP_002738;
Note=No experimental confirmation available;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -!- SUBCELLULAR LOCATION: Type I membrane protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ANGSTROMS) OF 153-335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             . IsoId=P20701-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     X-RAY CRYSTALLOGRAPHY (2.0 ANGSTR
MEDLINE=96398682; PubMed=8805579;
                                                                                                                                                                                                                                                                                                                        Cell Biol. 108:703-712 (1989).
                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. (ISOFORM 2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ASSOCIATES WITH BETA-2.
                                                                                                                                                                 TGAL OR CD11A.
                                                                                                                                                                                                                                                                                                                                      2
                                      RESULT
                                                                 셤
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its word non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                   -- DOMAIN: THE INTEGRIN I COMMIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
-- SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
-- SIMILARITY: Contains 1 VWFA domain.
-- SIMILARITY: Contains 7 FG-GAP repeats.
-- DATABASE: NAME=PROW; NOTE=CD guide CD11a entry;
-- WWW="http://www.ncbi.nlm.nlh.gov/prow/cd/cd11a.htm".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam; PF01839; FG-GAP; 3.
Pfam; PF01839; FG-GAP; 3.
Pfam; PF001957; integrin_A; 1.
PF1019; PF001957; integrin_A; 1.
PRINTS; PF001915; Int_alpha; 4.
SMART; SM00191; Int_alpha; 4.
SMART; SM00191; Int_alpha; 4.
PROSITE; PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PS50234; VWPA; 1.
Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                . .) (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Signal, 3D-structure, Magnesium, Calcium, Repeat, Alternative splicing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-LINKED (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INTEGRIN ALPHA-L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FG-GAP 1.

FG-GAP 2.

FG-GAP 3.

FG-GAP 4.

FG-GAP 5.

FG-GAP 5.

FG-GAP 7.

FG-GAP 7.

FG-GAP 7.

FG-GAP 7.

FG-GAP 7.

FG-GAP 7.

FG-GAP 7.

FG-GAP 7.

FG-GAP 7.

FG-GAP 7.

FG-GAP 7.

FG-GAP 7.

FG-GAP 7.

FG-GAP 7.

FG-GAP 7.

FG-GAP 8.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

FG-GAP 1.

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MIM; 153370; -.
GO; GO:0008305; C:integrin complex;
GO; GO:0006928; P:cell motility; TAS
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002035; VWF.A.
TISSUE SPECIFICITY: LEUKOCYTES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      , AC002310; AAC31672.1; -. S03308; S03308.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; Y00796; CAA68747.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PDB; 1ZOC; 07-DEC-96.
PDB; 1ZOC; 07-DEC-96.
PDB; 1COC; 07-DEC-96.
PDB; 1DGQ; 03-FEB-00.
PDB; 1MJN; 28-JAN-03.
PDB; 1MQ9; 14-JAN-03.
PDB; 1MQ9; 14-JAN-03.
Genew; HGNC:6148; ITGAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1170
1088
1112
1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                476
538
598
1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1LFA; 29-JAN-96
1ZON; 07-DEC-96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               401
```

A CALL DE LA CALLED LA CAL

	RESULT 6 ITAL MOUSE ID TITAL MOUSE STANDARD; PRT; 1163 AA.  AC P4063; DT 01-MAR-1992 (Rel. 21, Created) DT 10-MAR-1992 (Rel. 21, Last sequence update) DT 28-FEB-2003 (Rel. 41, Last annotation update) DT 28-FEB-2003 (Rel. 41, Last annotation appare) DT 28-FEB-2003 (Rel. 41, Last annotation update) DE Integrin alpha-L precursor (Leukocyte adhesion glycoprotein LFA-1 DE alpha chain) (Leukocyte function associated molecule 1, alpha chain) CDI1a) GN ITGAL OR LFA-1. OS Mus musculus (Mouse). OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus.
Gaps  YSTGSCE  SGTGHCL  SMLR SMLR  ONLOGEM	-QQPQKFPEALRGCPQED\$SIAFLVDGSGSIIPHDFRRAKEFISTYMEQLKKSKTLFSLM 174 -QGRPGFQECIKGNULVELFGSMALGAFRKUDMKKLSNTSYGFAAV 196  QYSEEFRIHFTEKEFQNPRSLIKPITQLLGRTHTAGIRKVVRELSNTSYGFAAV 196  QYSEEFRIHFTKEFQNPRSLIKPITQLLGRTHTAGIRKVVRELSNTNGARKNAF 234   :
89 89 89 89 89 89 89 649 649 649 649 649 649 649 649 649 64	-QQPOKFPEALRGCP LQGRPGFOEIRG- OYSEEFRIHFTFKEF  :  ::     :: QFSTSYKTEFDFSDY KILLITDGEKFGDP  :   :           KVLIIITDGEK-ATD HVFQINNFEALKTIQ
S Γ	116 - 001 141 L0 0 175 QYSI 197 QFS 235 KIL: 257 KVL. 295 HVF
A Marie	6 6 6 6 6 6

```
60 IRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQ 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 : | | | | : | | | : | : | | | | 305 VEEFVKILDTFEKLKDLFTDLQRRIYAIEGTNRQDLTSFNMELSSSGISADLSKGHAVVG 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           410 YQHIGLVAMFR--QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYY 467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ||: ||||| | : ||||| | 365 AVGAKDWAGGFLDLREDLQGATFVGQEPLTSDVRGGYLGYTVAWMTSRSSRPLLAAGAPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAG-EVRVCLHVQKST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120 KFPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FRIHFTFKEF-ONNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LITDGEKFGDPLGYEDVIPEADREG------VIRYVIGVGDAFRSEKSRQELNTVASKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            292 PRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      352 TVGSYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          168 EQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 FNLDTENAMTFQENA-RGFGQSVVQLQGSRVVVGAPQBIVAANQRGSLYQCDYSTGSCEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99; Gaps
                                                                                                                                                                                                                                                                                                                                                                     (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 26.2%; Score 1538.5; DB 1; Length 1163; Best Local Similarity 34.2%; Pred. No. 3.6e-96; Matches 401; Conservative 214; Mismatches 458; Indels 99;
                                                                                                                                                                                                                                                                                               POTENTIAL)
POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                 POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1163 AA; 128343 MW; A7A3078489E8232F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                              (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GLCNAC.
                                                                                                                                                                                                                                                                                            (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GLCNAC
                                               BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED (GLCN.
N-LINKED 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                         DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                   CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                         SULFID
                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                DISULFID
                                                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                    ISULFID
CA BIND
a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstands. The Lauropean Bioinformatics Institute. There are no restrictions on its use; by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                              Kaufmann Y., Tseng E., Springer T.A.; "Cloning of the murine lymphocyte function-associated molecule-1 alpha-subunit and its expression in COS cells."; Immunol. 147:369-374 (1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRINTS; PRO118; INTEGRINA
PRINTS; PRO1453; VWARDOMAIN.
SMART; SM00191; Int_alpha; 5.
SMART; SM00327; VWA; 1.
PROSITE; PS050242; INTEGRIN ALPHA; 1.
Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane;
Signal; Magnesium; Calcium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INTEGRIN ALPHA-L.
EXTRACELLULAR (POTENTIAL).
CYTOFINABAL.
CYTOPINABAL.
FG-GAP 1.
FG-GAP 2.
WWFA.
FG-GAP 3.
FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 6.
FG-GAP 6.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL, M60778, AAA39426.1;
PIR; 156126; 156126.
HSSP, P20701; 1LFA.
MGD; MGI:96606; 11Gal.
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002035; VWF_A
                                                                                MEDLINE=91268576; PubMed=2051027;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam, PF01839; FG-GAP, 3.
Pfam, PF00357; integrin A, 1.
Pfam, PF00092; vwa, 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1163
1084
1108
1163
88
                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              516
576
576
528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CHAIN
DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REPEAT
CA_BIND
CA_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Repeat.
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REPEAT
```

THE LEFT TETT TETT TO DO NOT A DO NOT A DO NOT A DO NOT A DO NOT A DO NOT A DO NOT A DO NOT A DO NOT A DO NOTA

36,

5 79 409

424

351

291

484 527 541

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@ib-sib.ch).
                                                                                                                                                                                                                                                                            InterPro; PROMO2013; Integrin_alpha.
InterPro; IPR0002013; Integrin_alpha.
InterPro; IPR0002013; Integrin_alpha.
R InterPro; IPR0002013; Integrin_A:
R Pfam; PP001857; Integrin_A: 1.
R Pfam; PP0019257; INTEGRINA.
R PRINTS; PR001925; INTEGRINA.
R PRINTS; PR001915; INTEGRINA.
R SWART; SM001915; INTEGRINA.
R PROSITE; PS00242; INTEGRIN ALPHA; 1.
R PROSITE; PS02244; VWFA; 1.
W Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane;
W Signal; Repeat; Magnesium;
Calcium.
WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
-- SIMILARITY: BELDOGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
--- SIMILARITY: CONtains 1 WHPA domain.
--- SIMILARITY: Contains 7 FG-GAP repeats.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INTEGRIN ALPHA-E.
INTEGRIN ALPHA-E LIGHT CHAIN.
INTEGRIN ALPHA-E HEAVY CHAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FG-GAP 1.
FG-GAP 2.
X-DOMAIN (EXTRA DOMAIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GLU-RICH (ACIDIC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               POTENTIAL. POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GFFKR MOTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VWFA.
                                                                                                                                                                                                                                   EMBL; U12236; AAC52142.1; -.
                                                                                                                                                                                                                                                               MGD; MGI:1298377; Itgae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                654
1191
1144
1164
1644
1023
1047
1047
1047
1047
1047
1047
118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19
1167
181
1167
1114
11137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     437
718
773
829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISULFID
DISULFID
DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CHAIN
CHAIN
CHAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REPEAT
REPEAT
CA BIND
CA BIND
CA BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
     DLKRPSSE---AEQPCLPGV-----QFRCPIVF---RWEILIQVTGTVELSKEIKAS 1042
                                                                                                                                                                                   816
                                                                                                                                                                                                                                                     875
                                                                                                                                                                                                                                                                                                                                                                                                                     715
                                                                                                                                                                                                                    827
                                                                                                                                                                                                                                                                                         882
     599 VGAEGRVVVLSSRPVVD\VVTELSFSPEEIPVHEVECSYSAREEQKHGVKLKACFRIKPLT 658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Smith T.J., Ducharme L.A., Shaw S.K., Parker C.M., Brenner M.B., Kilshaw P.J., Weis J.H., Shaw S.K., Parker C.M., Brenner M.B., Kilshaw P.J., Weis J.H., Shaw S.K., Parker C.M., Brenner M.B., Kilshaw P.J., Weis J.H., Shaw S.K., Parker C.M., Brenner M.B., Kilshaw P.J., Weis J.H., Shaw S.K., Farker C.M., Taker C.B., Cable M.B., Farker S.H., Shamast C.B., Taker C.B., Parker M.C., Expressing A NULL MUTATION OF THE ALPHA-E SUBUNIT GENE EXHIBIT A MARKED REDUCTION IN THE NUMBERS OF INTRABPITHELIAL LYMPHOCYTES IN THE GUT AND IN THE DEVELOPMENT OF GUT-ASSOCIATED LYMPHOLD AGGREGATES, SUPPORTING A SPECIFIC ROLE FOR THIS INTEGRIN IN MEDIATING RETENTION OF LYMPHOCYTES IN THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INTESTINAL WALL.
SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. THE ALPHA SUBUNIT: HETERODIMER OF AN HEAVY AND A LIGHT CHAINS LINKED BY A DISULFIDE BOND. ALPHA-E ASSOCIATES WITH BETA-7.
SUBCELLULAR LOCATION: Type I membrane protein.
DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS
                                                                                                                                                                                                                                                                                                                                                DDLSITFSFMSLDCLVVGGP-----REFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKV
                                                                                                                                                                                                         VMQHQYQVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQ----VTFSENLSS----TCHTK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      E-RLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTS
                                        647 RDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNC
                                                                         PQ--FQGRLLANLSYTLQLDGHRMRSRGLFPDGSHELSGNTSITP-DKSCLDFHFHFPIC
                                                                                                             IEDPVSPIVLRLNFSLV --GTPLSAFGN-LRPVLAEDAQRLFTALFPFEKNCGNDNICQ
                                                                                                                                                                                                                                                     STLONORSORSWRLACESASSTEVSGAL-KSTSCSINHPIFPENSEVTFNITFDVDSKAS
                                                                                                                                                                                                                                                                                                                            LGNKLLLKANVTSEN-NMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Integrin alpha-E precursor (Integrin alpha M290).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1106 ALITAALYKLGFFKRQYKDMM-SEGGPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1101 FLIFLALYKVGFFKRNLKEKMEADGGVPNGSP 1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT; 1167 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN=AKR;
MEDLINE=95187992; PubMed=7882170;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAE MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        166
                                                                         629
                                                                                                             707
                                                                                                                                                                                   763
                                                                                                                                                                                                                    775
                                                                                                                                                                                                                                                     817
                                                                                                                                                                                                                                                                                         828
                                                                                                                                                                                                                                                                                                                            876
                                                                                                                                                                                                                                                                                                                                                                                                                                   943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ITAE M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                        셤
                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                           ઠે
                                                                                                                                          셤
                                                                                                                                                                               ò
                                                                                                                                                                                                                                                     ò
```

(POTENTIAL) (POTENTIAL) (POTENTIAL) (POTENTIAL) (POTENTIAL) (POTENTIAL) (POTENTIAL)

(POTENTIAL)

(POTENTIAL) (POTENTIAL) (POTENTIAL) (POTENTIAL) (POTENTIAL)

```
TAE HUMAN
                                                        986
                                                                        1026
                                                                                         1046
                                                                                                                           1096
       919
                                                                                                                                                                   RESULT 8
ITAE_HUMAN
                                                                                                                                                                                              8
                                                                                                                                      g
                                     셤
                                                                     8
                                                                                         δ
                                                                                                                          ઠે
                ઠે
                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        930
                                                 43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    868
                                                                                                                                                                                                                                                                         367
                                                                                                                                                                                                                                                                                                                            488
                                                                                                                                                                                                                                                                                                                                                            547
                                                                                                                                                                                                                                                                                                                                                                                                                                665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  760
                                                                                                   109
                                                                                                            192
                                                                                                                                                                     189
                                                                                                                                                                                      252
                                                                                                                                                                                                       249
                                                                                                                                                                                                                      312
                                                                                                                                                                                                                                                         372
                                                                                                                                                                                                                                                                                          429
                                                                                                                                                                                                                                                                                                           425
                                                                                                                                                                                                                                                                                                                                            482
                                                                                                                                                                                                                                                                                                                                                                             536
                                                                                                                                                                                                                                                                                                                                                                                             909
                                                                                                                                                                                                                                                                                                                                                                                                               596
                                                                                                                                                                                                                                                                                                                                                                                                                                                653
                                                                                                                                    131
                                                                                                                                                                                                                                        LGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQINNFEALKTIQ 309
                                                                  25
                                                                                74
                                                                                                                                                                                                                                                                                                                                                     LRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKS----TRDRLREG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               811 LSYRKVSTLQNQRSQRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -----DALPMVFIGKM--DVNLCFEVDSSVVASEPGLREM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   697 ETLKLOLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLR----PVLAEDAQRLFTALF--P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEKNCGNDNICQDDLSITFSFMSLDCLVVGGPREFNVTVRNDGEDSYRTQVTFFFPLD
                                                                                                                                                                                                                                                                                                                      -QDASFSLAHTLSGHPGLTNSRFGFAMAAVGDINQDKFTDVAIGAPLEGFGAGDGASYGS
                                                                                                                                                                                                                                                                                                                                                                                                                         FINDUDWAWVTALOPGAPAVLSSLLHLDPSN-----NOTCLLVARRSSNRNTAALYRCAI
                                                                                                                                                   133 LTPNLDLOAOAYFSDLEGFLDPGAHVDSGDYCRSKGGSTGEEKKSARRRTVEEEDEEED
                                                                                                                                                                      DSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQL--KKSKTLFSLMQYSEEFRIHFTFKEF
                                                                                                                                                                               QNNPNPRSLIKPITQLIGRTHTATGIRKVVRELFNITNGARKNAFKILILITDGEKFGDP
                                                                                                                                                                                                                 LNLTTVINSPKMQGVVRPAIGVGDRFKNNNTYRELKLIASDPKBAHTFKVTNYSALDGLL
                                                                                                                                                                                                                                                                         NOLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGP-LLSTVGSYDWAGGVFLY-TS
                                                                                                                                                                                                                                                                                    SKLQQRIVHMEGT----VGDALQYQLAQTGFSAQILDKGQVLLGTVGAFNWSGGALLYSTQ
                                                                                                                                                                                                                                                                                                           KEKSTFINMT-RVDS-DMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGM
                                                                                                                                                                                                                                                                                                                                             WESNA---NVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPR
                                                                                                                                                                                                                                                                                                                                                                            GORARWOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAP-----GEEDNRGA
                                                                                                                                                                                                                                                                                                                                                                                                              VYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  654 QIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTC-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -----TKQRQRLQCEDSSGCQSCLRKWNGGSFLCEHFWLI
                                                                  1 FNLDTENA--MTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGS-----LYQCDY
                                                                                                   STGSCEPIRLQVPVEAVNMSLGLSLAATT -- SPPQLLAC-GPTVHQTCSENTYVKGLCFL
                                                  Gapa
N-LINKED (GLCNAC. . .) (POTENTIAL)
N-LINKED (GLCNAC. . .) (POTENTIAL)
                                 Length
         LUSS 1086 N-LINKED (GLCNAC. . .) (POT1
1167 AA; 128983 MW; B8331C115DCCCFFD CRC64;
                                                  Indels
                                 DB 1;
                                       Conservative 214; Mismatches 457
        (GLCNAC.
                                 19.84; Score 1161.5; 29.04; Pred. No. 1.4e
                                                                                                                                     FGSNLROOPOKFPEALRG----------
        N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LRSRPWOLTVSMTFTP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FLNFTVDVDV-----
        1086
                               Query Match
Best Local Similarity
Matches 357; Conserv
1055
                                                                                                                                                                                                                        253
                                                                                                                                                                                                                                          250
                                                                                                                                                                                                                                                                           310
                                                                                                                                                                                                                                                                                           373
                                                                                                                                                                                                                                                                                                            368
                                                                                                                                                                                                                                                                                                                            430
                                                                                                                                                                                                                                                                                                                                             426
                                                                                                                                                                                                                                                                                                                                                             489
                                                                                                                                                                                                                                                                                                                                                                              183
                                                                                                                                                                                                                                                                                                                                                                                               548
                                                                                                                                                                                                                                                                                                                                                                                                               537
                                                                                                                                                                                                                                                                                                                                                                                                                                607
                                                                                                                                                                                                                                                                                                                                                                                                                                                 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       869
                                                                                  20
                                                                                                                                                                                                       190
                                                                                                                                                                                                                                                          313
                                                                                                   53
                                                                                                                    75
                                                                                                                                     110
                                                                                                                                                                      132
CARBOHYD
        CARBOHYD
                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                       8 6
                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
FFS
                                                                               q
                                                                                                  ò
                                                                                                                 g
                                                                                                                                              g
                                                                                                                                                                                원
장
원
                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                     ठे
                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                  ð
                                                                                                                                   ઠે
                                                                                                                                                                 õ
```

```
1025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   E-CADHERIN. IT
TO EPITHELIAL
EESVFPNRTADITVTISNSNEKSLARETR---SLQFRHAFIAVLSR--PSVMYMN--TSQ
                                                                                                                                                                                                                  931 NTSRVMQHQYQVSNLGQRSLPISLVPLVPVRLNQTVIWDRPQVTFSENLSST----CHT
                                                                                                                                                                                                                                                                                                                                                                       SPSDHKEFFFNVHGENLFGAVFOLOICVPIKLODF-----OIVRVKNLTKTQDHTECTQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ----TSNKENVTVAAEISVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ·EILFNDSVFTLLPGQGAFVRSQTETKVEPF----EVPNPLPLIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE=Fetal kidney;
MEDLINE=2013496; PubMed=10673275;
MEDLINE=2013496; PubMed=10673275;
Truchman J.W., Anikster Y., Dietrich N.L., Maduro V.V., McDowell G.,
Shotelersuk V., Bouffard G.G., Beckstrom-Sternberg S.M., Gahl W.A.,
Green E.D.;
"The genomic region encompassing the nephropathic cystinosis gene
"The genomic region encompassing the nephropathic cystinosis gene
(CTNS): complete sequencing of a 200-kb segment and discovery of a
novel gene within the common cystinosis-causing deletion.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wang J.-H., Takada Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ш
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUELCE FROM N.A., AND SEQUENCE OF.19-38 AND 179-188.

TISSUELLELeukemia, and Lymphocytes;

MISDLINES-94164962; PubMed-8119947;

Shaw S.K., Cepek K.L., Murphy E.A., Russell G.J., Brenner M.B.,

Parker C.M.;

Parker C.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Parker G.M.;

Pa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         [4]
MUTAGENESIS OF ASP-109 AND PHE-316.
MUTAGENESIS OF PubMed=10837471;
Higgins J.M.H., Cernadas M., Tan K., Irie A., Wang J.-H., Takada
Brenner M.B.;
"The role of alpha and beta chains in ligand recognition by beta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       P38570; QSNZU9; OCTEATED) CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROLL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF CONTROL OF C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. THE ASUBUNIT IS COMPOSED OF AN HEAVY AND A LIGHT CHAINS LINKED DISULFIDE BOND. ALPHA-E ASSOCIATES WITH BETA-7. SUBCELLULAR LOCATION: Type I membrane protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              integrins.";
J. Biol. Chem. 275:25652-25664(2000).
-!- FUNCTION: INTEGRIN ALPHA-E/BETA-7 IS A RECEPTOR FOR MEDIATES ADHESION OF INTRA-EPITHELIAL T-LYMPHOCYTES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1179 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SQEPACGSDPVQHVKEWHSVVCAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 53-1179 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genome Res. 10:165-173(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HNHLLIVSTA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Parker C.M.;
Submitted (MAR-1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    [2]
REVISIONS TO 88-114.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CELL MONOLAYERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9606;
```

```
39,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVL 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    814
                                                                                                                                                                                                                                                                                                                                                                                                                      117
                                                                                                                                                                                                                                                                                                                                                                                     45 GSLYQCDYSTGS--CEPI-RLQVP-----VEAVNMSLGLSLAATTSPPQLLACGPTVHQ 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120 KFPEALRGCPQED------SDIAFLVDGSGSIIPHDFRRAKEFISTVMEQL--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGIRKVVRELFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NTVASKPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    517 GDKLTDVAIGAP----GEEDNR--GAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            96 TCSENTYVKGLCFLFGSNLRQQPQ------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SNGP-LLSTVGSYDWAGGVFLY-TSKEKSTFINMTRVDSDMNDA----YLGYAAAIILRN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RVQSLVLGAPRYQHIGLVAMFR-QNTGMWESNANV-KGTQIGAYFGASLCSVDVDSNGST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                691 GLTQTCETLKLQLPN----CIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFT
                                                                                                                                                                                                                                                                                                                                                                                                                    65 GPLHRCSLVQDBILCHPVEHVPIPKGRHRGVTVVRSHHGVLICI-----QVLVRRP--HS
                                                                                                                                                                                                                                                                                                                                                   Gaps
                (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                               Query Match
19.6%; Score 1153; DB 1; Length 1179;
Best Local Similarity 29.1%; Pred. No. 5.3e-70;
Matches 342; Conservative 214; Mismatches 449; Indels 172;
                                                                                                                                                                           BINDING.
BINDING.
                                                                                                                                                    FTIG=VAR 008885.

| FTIG=VAR 008885.
| FTIG=VAR 008885.
| P->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BINDI |
| F->A: LOSS OF E-CADHERIN BIN
                                                                                    D -> E. /GLCNAC.
/FTId=VAR_008884.
C -> S.
                  (GLCNAC.
(GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                       C -> S. /
FTId=VAR_
                N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
   782
857
934
954
1065
1096
                                                                                                                                         1041
                                                                                                                                                                                                                          482
950
1019
1179
                                                                                                                                         1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             631
                                                  CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                          CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          648
                   CARBOHYD
                                     CARBOHYD
                                                                                                                                                                         MUTAGEN
MUTAGEN
                                                                                                                                                                                                             CONFLICT
                                                                                                                                                                                                                            CONFLICT
                                                                                                        VARIANT
                                                                                                                                       VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                           This SWISS-PROT entry is cipyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch)
                                              DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
SIMILARITY: CONTAINS I VWFA domain.
SIMILARITY: CONTAINS I VWFA domain.
SIMILARITY: CONTAINS NOTE=CD guide CD103 entry;
WHWH="http://www.ncbi.nlm.nih.gov/prow/cd/cdl03.htm".
TISSUE SPECIFICITY: EXPRESSED ON A SUBCLASS OF T-LYMPHOCYTES KNOWN AS INTRA-EPITHELIAL LYMPHOCYTES WHICH ARE LOCATED BETWEEN MUCOSAL EPITHELIAL CELLS.
                                                                                                                                                                                                                                                                                                                                                                                           (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCNAC.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GFFKR MOTIF.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LINKED
                                                                                                                                                                                                                                                                                                                                 EMBL, L25851; AAB59359.2; EMBL; AF168787; AAF43107.1; PIR, A53213, A53213. HSSP, P11215; 1A8X.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 638
693
530
530
662
1154
159
762
829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               49
321
444
726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          823
893
1008
1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
```

-

إبنان

```
PF01839; FG-GAP; 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                            1073
                                                                                                                                                                                                                                                                                                                                                                                  1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1074 WD-----HSEELLKDVTELQILGEİSFNKSLYEGLNAENH--RIKITVVFLKDEKYHSL 1125
                                                                                                                                                                                                                                                                                                                          | :: | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ----AEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPL 1091
                                                                                                                                                                                                                                                                                            716
                                                                                                                                                                                                      919
                                                                                                                                                                                                                                                983
                         ALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFF 806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ASSOCIATES WITH BETA-1
-: SUBCELLULAR LOCATION: Type I membrane protein.
-: SUBCELLULAR LOCATION: Type I membrane protein.
-: DOMAIN: THE INTEGRIN 1-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH 1-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
-: SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
-: SIMILARITY: CONCAINS 1 WG-A domain.
-: SIMILARITY: CONCAINS 1 WG-A FEPERS.
-: DATABASE: NAME=PROM; NOTE=CD guide CD49a entry;
WWW="http://www.ncbi.n.min.gov/prow/cd/cd49a.htm".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Biol. Chem. 268:2989-2996(1993).
- FUNCTION: INTEGRIN ALPHA-1/BETA-1 IS A RECEPTOR FOR LAMININ AND COLLAGEN. IT RECOGNIZES THE PROLINE-HYDROXYLATED SEQUENCE G-F-P-G-E-R IN COLLAGEN.
                                                FPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNI
                                                                                                                                                                                                   867 TEDVDSKASLGNKLLLKANVISENN----MPRINKIEFQ---LELPVKYAVYMVVISHGV
                                                                                                                                                                                                                                  S--TKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSE
                                                                                                                                                                                                                                                                                                                                                                                  978 NLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLS
                                                                                                                                                                                                                                                                                                                                                                                                                              -------SDKENVTVAAEIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Briesewitz R., Epstein M.R., Marcantonio E.E., \, "Expression of native and truncated forms of the human integrin alpha
                                                                                                                                           Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
NCSI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TA1_HUMAN STANDARD; PRT; 1151 AA.
P56199; (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
11-SEP-2003 (Rel. 42, Last annotation update)
Integrin alpha-1 (Laminin and collagen receptor) (VLA-1) (CD49a)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GO; GO:0008305; C:integrin complex; TAS.
GO; GO:0004895; F:cell adhesion receptor activity; NAS.
GO; GO:000518; F:collagen binding activity; TAS.
GO; GO:0007160; P:cell-matrix adhesion; NAS.
InterPro; IRR000413; Integrin_alpha.
InterPro; IPR002035; VWF_A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |:|: ||||||:| :| |:| |:| |||||:|: :| | PIIIKGSVGGLLVLIVILVILFKCGFFKRKYQQLNLE 1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PLIVGSSVGGLLLLALİTAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
MEDLINE=93155124; PubMed=8428973;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FDWYIKTSHNHLLIVST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genew, HGNC:6134; ITGAL.
MIM; 192968; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PIR; A45226; A45226.
PDB; 1QC5; 17-MAY-00.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 subunit.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1126
                         747
                                                                                                               807
                                                                                                                                                                                                                                                                                              920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                             ò
                                                                                                                                                     g
                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                         원
                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
```

```
44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            57 CEP-IRLQVPVEA-----VNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FNLDTENAMTFQENARG-FGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQCDYSTGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18.8%; Score 1103.5; DB 1; Length 1151; Similarity 27.8%; Pred. No. 1.2e-66; Conservative 212; Mismatches 486; Indels 195;
                                                                                                                             PROSITE; PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6B3F3C1AABF52808 CRC64;
                                                                                                                                                                        Integrin; Cell adhesion; neceptor.
Repeat; Calcium; Magnesium; 3D-structure.
DOMAIN 1 1113 EXTRACELLULAR (POTENTIAL)
TRANSMEM 1114 1136 POTENTIAL.
TRANSMEM 1117 1151 CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                         FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 7.
POTENTIAL.
POTENTIAL.
POTENTIAL.
GFFKR MOTIL.
GFFKR MOTIL.
GFFKR MOTIL.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                         FG-GAP 1.
FG-GAP 2.
VWFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AA; 127837 MW;
integrin_A; 1.
                                        PRINTS; PRO1185; INTEGRINA.
PRINTS; PR00453; VWFADOMAIN.
SMART; SM00191; Int_alpha; 5.
SMART; SM00327; VWA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1085
  Pfam; PF00357; integr
Pfam; PF00092; vwa; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1045
1055
1074
1085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       344;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S:
Matches 344
                                                                                                                                                                                                                            DOMAIN
TRANSMEM
DOMAIN
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
DISULFID
DISULFID
DISULFID
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                     REPEAT
CA BIND
CA BIND
CA BIND
SITE
                                                                                                                                                                                                                                                                                                                                      DOMAIN
REPEAT
REPEAT
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISULFI
```

```
1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GEL-----RSENASLVLSSSN------QKRELAIQISKDGLPGRVPL 1114
                                                                                                                                                                                                                                                                                                                                               451
                                                                                                                                                                                                                                                                                                                                                                                                                 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        991
                       CSDVSPTFQVVNSIAP--VQECSTQ-LDIVIVLDGSNSIYPWDSVTA--FLNDLLKRMDI 174
                                                                                                                                                                                                        KSRQELNTVASKPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEG 338
                                                                                                                                                                                                                                          353
                                                                                                                                                                                                                                                                           FSAAITSNGPLLSTVGSYDWAGGVFLYTSKE----KSTF-INMTRVDSDMNDAYLGYAA 392
                                                                                                                                                                                                                                                                                                             412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              784
                                                                                                                                                          TEARGARRGVKKVWVIVITDGESH-DNHRLKKVIQDCEDENIQRFSIAILGSYNRGNLSTE
                                                                                                                                                                                                                            294 KFVEEIKSIASEPTERHFFNVSDELALVTIVKTLGERIFALBATADQSAASFEMEMSQTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S33 ENKNEPCGARFGTALAAVKDLNLDGFNDIVIGAPLEDDHGGAVYIYHG-SGKTIRKEYAQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 973 KLSISFPNMTSNGYPVLYPTGLSS-----SENANCRPHIFEDPFSINSGKKWTT
 CFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLK-
                                                                                                     GPKOTOVGIVOYGENVTHEFNLNKYSSTEEVLVAAKKIVORGGROTMTALGTDTARKEAF
                                                                                                                                     224 NITNGARKNAFKILILIFDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFR----SE
                                                                                                                                                                                                                                                                                                           354 FSAHYSQDWVMLGAVGAYDWNGTVVMQKASQIIIPRNTTFNVESTKKNEPL-ASYLGYTV
                                                                                                                                                                                                                                                                                                                                                                             413 NSATASSGDVLYIAGOPŘÝNHIGOVIIYŘMEDĠNIKILQTĽSGEQIGSÝFGSIĽTTTĎIĎ
                                                                                                                                                                                                                                                                                                                                                                                                                 -----YEQTR-GGQVSVCPLPRGQRARWQCDAVLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                 473 KDSNTDILLVGAPMYMGTEKEEQGKVYVYALNQTRFEYQMSLEPIKQTCCSSRQHNSCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RIPSGGDGKTLKFFGQSIHGEMDLNGDGLTDVTIGGLGGAALFWSRDVAVVKVTMNFEPN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EVARNVFECNDQVVKGKEAG -- EVRVCLHVQ - KSTRDRLREGQIQSVVTYDLALDSGRPH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KVNIQKKNCH----MEGKETVCINATVCFEVKLKSKEDTIYEADLO----YRVTLDSLROI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SRSFFSGTQERKVQRNITVRKSEC----TKHSFYMLDKHDFQDSVR---ITLDFNLT-D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGGPRE-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KSTSCSINHPIFPENSEVTFNITFDVDSKASLGN-KLLLKANVTSENNMPRTNKTEFQLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IPVKYEVGLOFYS-SASEYHISIAANETVPEVINSTEDIGNEINIFYLIRKSGSFPMPEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        --LVPVRLNQTVIWDRPQVTFSENLSSTCHTKE------RLPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HSDFLABLRKAPVVNCSIAVCORIQCDIPFFGIQE--------EFNATLK
                                                                     -KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGR-THTATGIRKVVRELF
                                                                                                                                                                                                                                                                                                                                             AIILRNRVQSL-VLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GEOGOPWG-RFGAALTVLJGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SRAVENET -----KNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLVGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PENG-----PVLDDSLPNSVHEYIPPAKDCGNKEKCISDLSLHVATTEKDLLIVRSQNDK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  854 HNITCKVGYPFLRRGEMVTFKILFOFNTSYLMENVTIYLSATSDSEEPPETLSDNVVNIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN-----LGQRS-----L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             --IVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                 SNGSTDLVLIGAPHY - -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PISLVF----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1079
107
                                                                     166
                                                                                                                                                                                                                                                                           339
                                                                                                                                                                                                                                                                                                                                               393
                                                                                                                                                                                                                                                                                                                                                                                                                 452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1094
                                                                                                                                                                                                                                                                                                    අ
                                                                                                                                                                                                                                                                                                                                        중 원
                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                 g
                                                                                                                                   ò
                                                                                                                                                                   g
                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
 ò
                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         the European Bloinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE=Fetal heart, and Osteoblast;
MEDLINES941778; PubMed=10486209;
Lebhert K., Ni J., Leung E., Gough S.M., Weaver A., Yao W.P., Liu D.,
Wang S.-X., Morris C.M., Krissansen G.W.;
"Cloning, sequence analysis, and chromosomal localization of the novel
human integrin alphail subunit (ITGAII).";
Genomics 60:179-187(1999).
                                                                                                                                                                                                                                                                                                                                                  TISSUE-Fetal muscle, and Uterus;
MEDLINE-99395147; PubMed=10464311;
Velling T., Kusche-Gullberg M., Sejersen T., Gullberg D.;
"CDNA Cloning and Chromosomal Localization of Human alpha(11)
Integrin. A collagen-binding, i domain-containing, beta(1)-associated integrin alpha-chain present in muscle tissues.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota, Metazoa; Chordata, Craniata, Vertebrata, Butele
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
NCBI_TaxID=9606;
09UKXS; Q9UKQ1;
16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GO:0008305, C:integrin complex; TAS
                                                                                                                                                                                                                                                                                                                                                                                                                              J. Biol. Chem. 274:25735-25742(1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; AF109681; AF01258.1; -.
EMBL; AF137378; ABD51919.2; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF 954-1188 FROM N.A.
                                                                                                                                    Integrin alpha-11 precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Genew, HGNC:6136; ITGAll.
MIM; 604789; -.
GO; GO:0008305; C:integri
                                                                        STANDARD;
                                                                                                                                                             Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P17301; 1AOX
                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE=Fibroblast
                                                                          HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HSSP;
             음
```

```
610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               994
                                                                                                                                                                                                                                                                                                                                                                                                                          514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              934
                                                                                                                                                                                                                                              315
                                                                                                                                                                                                                                                                                                                       343 ITSNGPLLSTVGSYDWAGGVFLYTSKEK----STFINMTRVDSDMNDAYLGYAAAIILR 397
                                                                                                                                                                                                                                                                                                                                         NRV-OSLVLGAPRYQHIGLVAMF-RONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGS 455
                                                                                                                                                                                                                                                                                                                                                                                        551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               680 KNS-TRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLA 738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       764
                                                                                                                                                                                          199 IOVGVVOYGEDVVHEFHLNDYRSVKDVVEAASHIEORGGTETRTAFGIEFARSEAFO--K 256
                                                                                                                                                                                                                     GARKNAFKILILITDGEKFGDPLGYEDVIPEADREGVIRYVIGV-----GDAFRSEKSRQ 282
                                                                                                                                                                                                                                                                       283 ELNTVASKPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAA 342
                                                                                                                                                                                                                                                                                      83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GDRFTNRAVLLSSGGELCERINFHVLD-TADYVKPVTFSVEYSLEDP-----DHGPMLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DITVFILESTRORVAVEATLENRGENAYSTVLNISQSANLOF--ASLIQKEDSDGS--IE
                                                                                                                                                                                                                                                                                                                                                                                                                                         TOVILVGAPMYFNEGRERGKVYVYEL---RONRFVYNGTLKDSHSYQNARFGSSIASVRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           633 AGEVRVCL------HVQKSTRDRLREGQIQSVVTYDLALDSGRPHSRAVFNET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -----SITFSF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   772 MSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | : | : | :: | :: | :: | :: | CUNEER -----RLQKQVCNVSYPFFRAKAKVAFRLDFEF-SKSIFLHHLEIELAAGSDSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ERDSTKEDNVAPLRFHLKYEADVLFTRSSSLSHYEVKLNSSLERYDGIGPPFSCIFRIQN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LGQ----RSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTC----HTKERLPSHSDFLA
                                                                                                                                                                                                                                   TDLVLIGAPHYYEQTR-GGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            515 VNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSORIAGSKLSPRLOYFGQSLSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GODLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVF--ECNDQVVKGKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SGRDATCLAAFLCFTPIFLAPHFQTTTVG-----IRYNATMDERRYTPRAHLDEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DGWPTTLRVSVPFWNGCNEDEHCVPDLVLDARSDLPTAMEYCQRVLRKPAQDCSAYTLSF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       992 MPRTNKTE - - FQLELPVKYAVYMVVTSHGVSTKY - - - LNFTAS - - ENTSRVMQHQYQVSN
                               CEPIRL - - - - OVPVEAVNMSLGLSLAATTSPPOLLACGPTVHOTCSENTYVKGLCFLF
                                                                                        CTKLNLGRVTLSNVSERKDNMRLGLSLATNPKDNSFLACSPLWSHECGSSYYTTGMCSRV
                                                                                                                   GSNLRQQPQKFPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQ--LKKKSK
                                                                                                                                 TLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLG-RTHTATGIRKVVRELFNITN
                 FNLDTENAMTFQENARG-FGQSVVQ--LQGSR-VVVGAPQEIVAANQRGSLYQCDYSTGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EDAQRLFTALFPFEKNCGNDNICQDDL-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               935
                                                                                                                                                                                                                                                                                                                                                                                                                           456
                                                                                                                                                                                                                                                                                                                                                                                                                                                     495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                995
                                                                  57
                                                                                                                                                                                                                      228
                                                                                                                                                                                                                                               257
                                                                                                                                                                                                                                                                                                                                                                          398
                                                                                                                                                                                                                                                                                                                                                                                                  435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          음
                                                                                                                                                                                                                                                                                                                                                                                                                                                 윤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                ò
                                                                                      8
                                                                                                                ઠ
                                                                                                                                    g
                                                                                                                                                                  8
                                                                                                                                                                                      셤
                                                                                                                                                                                                               8
                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                          음
                                                                                                                                                                                                                                                                                                                ठ
                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                         충
                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
RGO; GO:0004895; F:cell adhesion receptor activity; TAS.
RGO; GO:0005518; F:collagen binding activity; TAS.
GO; GO:0007160; P:cell-mackix adhesion; TAS.
RGO; GO:0007517; P:muscle development; TAS.
RICETPO: IPR0002035; VWFA.
RICETPO: IPR0002035; VWFA.
RPfam; PF01839; RG-GAP, 3.
RPfam; PF01839; RG-GAP, 3.
RPfam; PR00183; RTJEGRINA.
RPRINTS; PR00185; INTEGRINA.
RPRINTS; PR00181; Int_alpha; 5.
SWART; SW00191; Int_alpha; 5.
SWART; SW00191; Int_alpha; 6.
RPROSITE; PS00224; VWFA. 1.
RPROSITE; PS00244; VWFA. 1.
RPROSITE; PS00244; VWFA. 1.
RPROSITE; PS00244; VWFA. 1.
RPROSITE; PS1GNA.
RPROSITE; RGCAICIUM; Receptor; Glycoprotein; Transmembrane; MS1gnal; Repeat; Calcium; POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
18.6%; Score 1093.5; DB 1; Length 1189;
Best Local Similarity 28.2%; Pred. No. 5.9e-66;
Matches 348; Conservative 215; Mismatches 502; Indels 167;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /FTId=VAR_009894.
                                                                                                                                                                                                                     INTEGRIN ALPHA-11.
EXTRACELLULAR (POTENTIAL)
POTENTIAL.
                                                                                                                                                                                                                                                          CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GLCNAC...)
(GLCNAC...)
(GLCNAC...)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GLCNAC. . .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BY SIMILARITY.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FTId=VAR_009892.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     / -> M.
/FTId=VAR_009889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   --> L.
FTId=VAR_009890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FTIG=VAR_009893.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FTIG=VAR_009891
                                                                                                                                                                                                                                                                                                                                                                                                                                         BY SIMILARITY. POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BY SIMILARITY
BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                        POLY-LEU.
POLY-ARG.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                               POTENTIAL.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -LINKED
-LINKED
-LINKED
-LINKED
-LINKED
                                                                                                                                                                                                                                                                          FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                               VWFA.
FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MISSING
                                                                                                                                                                                                                                                                        FG-GAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ٨
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ₹,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BY
BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1189 AA; 133609
                                                                                                                                                                                                                      1189
1142
1165
1189
                                                                                                                                                                                                                                                                                                                                                                            1162
11177
496
559
621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1032
                                                                                                                                                                                                                                                                                                                                                                                                                                         83
1139
1139
729
729
893
823
823
1331
3331
528
528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          972
                                                                                                                                                                                                                     CHAIN
DOMAIN
TRANSMEM
DOMAIN
REPEAT
REPEAT
DOMAIN
REPEAT
                                                                                                                                                                                                                                                                                                                                                         REPEAT
DOMAIN
DOMAIN
CA BIND
CA BIND
CA BIND
CA BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ISULFID
ISULFID
ISULFID
ISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /ARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /ARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VARIANT
                                                                                                                                                                                                                                                                                                                        REPEAT
REPEAT
REPEAT
```

ODBRANGO ODBRANGO OBRA

```
Cell adhesion; Receptor; Glycoprotein; Transmembrane;
                                                                                                                                                                                                                                                                                                       865
1039
1049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            725 7;
1170 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
           Platelet; S
NON TER
SIGNAL
  ntegrin;
                                                CHAIN
DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VARIANT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           337
                                                                                                                                                                                                                                                                             DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                  DISULFID
DISULFID
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                  CA BIND
CA BIND
CA BIND
SITE
SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VARIANT
VARIANT
                                                                                                                                                                                                                                                                DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                           DOMAIN
REPEAT
REPEAT
                                                                                                                                                               REPEAT
REPEAT
                                                                                                              REPEAT
                                                                                                   REPEAT
                                                                                                                                                                                         REPEAT
 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                ---IFREEDPSRQIVFEISKQEDWQVPIWIIVGSTLGGLLLLA 1158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
              This SWISS-PROT entry is copyright. It is produced through a collaboration
ELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWY----IKTSHNHLLIV 1052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    noved. Usage by and for commercial
(See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EXPRESSION, FORCE GENERATION AND ORGANIZATION OF NEWLY SYNTHESIZED EXTRACELLULAR MATRIX.

-: SUBDUIT: HETERODIANER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-2

-: SUBCELLULAR LOCATION: Type I membrane protein.

-: SUBCELLULAR LOCATION: Type I membrane protein.

-: DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.

-: SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.

-: SIMILARITY: Contains 7 FG-GAP repeats.
                                                 1053 STAEILFNDSVFTLLFGQGAFVRSQTETKVEPFEVPN-----PLPLIVGSSVGGLLLLA
                                                                                                                                                                                                                                                       glycoprotein Ia) (GPIa)
                                                                                                                                                                                                                                                                                                                                                                                          Kamata T., Puzon W., Takada Y.;
"Identification of putative ligand binding sites within I domain of integrin alpha 2 beta 1 (VLA-2, CD49b/CD29).";
J. Biol. Chem. 269:9659-9663(1994).
-!- FUNCTION: INTEGRIN ALPHA-2/BETA-1 IS A RECEPTOR FOR LAMININ,
COLLAGEN, COLLAGEN C-ROPREPTIDES, FIBRONECTIN AND E-CADHERIN. IT RECOMIZES THE PROLINE-HYDROXYLATED SEQUENCE G-F-P-G-E-R IN COLLAGEN. IT IS RESPONSIBLE FOR ADHESION OF PLATELETS AND OTHER CELLS TO COLLAGENS, MODULATION OF COLLAGEN AND COLLAGENASE GENE
                                                                                                                                                                                                                                                                                          Bos taurus (Bovine).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Cetarțiodactyla, Ruminantia, Pecora, Bovoidea,
                                                                                                                                                                                                              01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Integrin alpha-2 precursor (Platelet membrane g)
(Collagen receptor) (VLA-2 alpha chain) (CD49b)
                                                                                                 1107 LITAALYKLGFFK--RÖYKDMMSEGGPPGAEP 1136
                                                                                                                 modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               entities requires a license agreement (or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRINTS; PRO1185; INTEGRINA.
PRINTS; PR00453; VWFADOMAIN.
SMART; SM00191; Int alpha; 5.
SMART; SM00327; VWA; 1.
PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HSSP; P17301, 1AOX.
InterPro, IPR000413; Integrin_alpha.
InterPro, IPR002015; VWF_A
Pfam; PF01839; FG-GAP; 3.
Pfam; PF000357; integrin_A; 1.
Pfam; PF00092; VWA; 1.
                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
MEDLINE=94193647; Pubmed=7511592;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; L25886; AAB59255.1;
PIR; I45914; I45914.
                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                  Bovidae; Bovinae; Bos.
                                                                         1108 AALQRQFH-SPF-
                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9913;
                                                                                                                                                                                      ITAZ BOVIN
PS3710;
                                               ò
                                                                     g
                                                                                                 ò
                                                                                                                      QQ
```

```
107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       222 LFNITNGARKNAFKILILITDGEKFGDPLGYEDVIPEADREGVIRYVIGV-----GDAFR 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     108 FLFGSNLRQQPQKFPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLK-- 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SDVSPDF-QLRTSFAPAVQTCP-SFIDVVVVCDESNSIYPWD--AVKNFLEKFVQGLDIG 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      166 KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLL---GRTHTATGIRKVVRE 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    195 PTKTQMGLIQYANNPRVVFNLNTFKSKD---EMİKATSQTFQYGGDLTNTFKALQYARDT 251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   311 TKNLIKEIKAIASIPTERHFFNVSDEADLLEKAGTIGEQIFSIEGTVQG-GDNFQMEMSQ 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EGFSAAIT--SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT--RVDSDMN-DAYLGYA 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  55 GSCEPIRLQ-----VPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEKSRQELNTVASKPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 FNLDTENAMTFQ-ENARGFGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQC--DYST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                    CELL ATTACHMENT SITE (POTENTIAL).

GFEKR MOTIF.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

R -> K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches 335; Conservative 217; Mismatches 495; Indels 168;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1170;
Signal; Repeat; Polymorphism; Calcium; Magnesium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EECEFIC5F2448FB1 CRC64;
                                                                    INTEGRIN ALPHA-2.
EXTRACELLULAR (POTENTIAL)
                                                                                                                                         CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2.2e-65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18.5%; Score 1085; 27.6%; Pred. No. 2.:
                                                                                                                                                                     FG-GAP 1.
FG-GAP 2.
VWFA.
                                                                                                                                                                                                                                          FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
POTENTIAL.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          128929 MW;
```

```
CHAIN
DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REPEAT
REPEAT
REPEAT
CA BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REPEAT
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REPEAT
| ::| | | | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| :|| | :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LRKAPVVNCSIAVCQRiQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEI- 1057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FRHIKELNCRTASCSNIMCWLRDLQVKGEYFLNVSTRIWNGTFAASTFQTVQLTAAAEID 1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LFNDSVFTL-----LPGOGAFVRSQTETKVEPFE-VPNPLPLIVGSSVGGLLLLALITA 1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                484
                                                                                                    503
                                                                                                                                      541
                                                                                                                                                                      561
                                                                                                                                                                                                        900
                                                                                                                                                                                                                                          621
                                                                                                                                                                                                                                                                          658
                                                                                                                                                                                                                                                                                                                                            707
                                                                                                                                                                                                                                                                                                                                                                              733
                                                                                                                                                                                                                                                                                                                                                                                                               756
                                                                                                                                                                                                                                                                                                                                                                                                                                                  789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   865 CNVGYPALKSKQQVTFTINFDFNLQ-NLQNQASISFRALSESQEENMADNSVNLKLSLLY 923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           909 AVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQR-----SLPISLVFLV 958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             429
                                                                                                                                                                                                                                                                                                          622 ECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALD----SGRPHSRAVFN 677
                                                                                                                       ETKNSTRRQTQVLGLT&TCE--TLKLQLPNCIEDPVSPIVLRLNFSL--VGTPLSAFGNL
                                                                                                                                                                                                                                                                                                                                                                                                  VGFSAEYSPONNILMLGAVGAYDWSGTVVQKTPHGHLIFSKQAFEQILQDRNHSSYLGYS
                                                         SPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVF
                                                                                                                                                                                                                                                                          SSHLQYFGRSLDGYGDLNGDSITDVSVGAFGQVVQLWSQSIADVSVDASFTPKKI--TLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                  734 RPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITF----SFMSLDCLVVGGPREFNVTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      790 TVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASST-EVSGALKSTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKY
                                                                                                    CSVDVDSNGSTDLVLIGAPHYYEQTR - - GGQVSVCPLPRGQRARWQCDAVLYGEQGQPWG
                                                                                                                                                                        RFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSORIAGS--KL
                                  AAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANV-----KGTQIGAYFGASL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              glycoprotein Ia) (GPIa)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              annotation update)
(Platelet membrane galpha chain) (CD49b)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT; 1178 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17A2_MOUSE STANDARD; E 062469; 062163; 15-7UL-1998 (Rel. 36, Created) 15-7UL-1998 (Rel. 36, Last seq. 28-FEB-2003 (Rel. 41, Last anno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota, Metazoa, Chordata,
Mammalia, Eutheria, Rodentia,
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1111 ALYKLGFFKRQYKDM 1/125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Integrin alpha-2 precursor (Collagen receptor) (VLA-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1091 TYNPQIYVIEENTVTIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1058
                                                                                                                                                                                                                                                                                                                                              629
                                                                                                                                                                                                                                                                                                                                                                                678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 666
                                                                                                                                                                                                          542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          849
 370
                                                                                                      446
                                                                                                                                      185
                                                                                                                                                                        504
                                                                                                                                                                                                                                            562
                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                  708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
ITA2 MOUSE
ID ITA5 M
AC 062469 M
DT 15-UUL
DT 28-FEB
DE INTEGT:
GN ITGA2.
OS MUS MUS
OC BURATY
OC MAMMAILO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                            g
                                                                                              ò
                                                                                                                                  g
                                                                                                                                                                    ò
                                                                                                                                                                                               8
                                                                                                                                                                                                                                        8
                                  ò
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@ib-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBCELLULAR LOCATION: Type I membrane protein.

DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.

SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.

SIMILARITY: Contains I VWFA domain.

SIMILARITY: Contains 7 FG-GAP repeats.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EXTRACELLULAR MATRIX. IT IS ALSO A RECEPTOR FOR LAMININS, COLLAGEN C-PROPERTIDES AND E-CADHERIN. MICE HOMOZYGOUS FOR A NULL MUTATION IN THE ALPHA-2 DIE VERY EARLY IN EMBRYGENESIS.
SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-2
                                                                                                                                                                                                                                                                                                                                                                                                                                             2 beta 1 integrin in mutine construction by 199:292-314 (1994).
199:292-314 (1994).
1- FUNCTION: INTEGRIN ALPHA-2/BETA-1 IS A COLLAGEN RECEPTOR, BEING
1- FUNCTION: INTEGRIN ALPHA-2/BETA-1 IS A ND OTHER CELLS TO
RESPONSIBLE FOR ADHESION OF PLATELETS AND OTHER CELLS TO
COLLAGENS MODULATION OF COLLAGEN AND COLLAGENNES GENE EXPRESSION,
FORCE GENERATION AND ORGANIZATION OF NEWLY SYNTHESIZED
FORCE GENERATION AND ORGANIZATION OF NEWLY SYNTHESIZED
FORCE GENERATION AND ORGANIZATION OF NEWLY SYNTHESIZED
FORCE GENERATION AND ORGANIZATION OF NEWLY SYNTHESIZED
FORCE GENERATION AND ORGANIZATION OF NEWLY MUTATION
SEQUENCE FROM N.A.
STRAIN=C57BL/6 X CBA; TISSUB=Lung;
MEDLINE=94365406; PubMed=8081889;
Edelman J.M., Chan B.M., Uniyal S., Onodera H., Wang D.Z.,
Damjanovich L., Latzer D.B., Finberg R.W., Bergelson J.M.;
"The mouse VLA-2 homologue supports collagen and laminin adhesion but
                                                                                                                                                                                                                                                                                                                      TISSUE=Lung;
MEDLINE=94355691; PubMed=7521231;
Wu J.E., Santoro S.A.;
"Complex patterns of expression suggest extensive roles for the alpha-
2 beta 1 integrin in murine development.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CYTOPLASMIC (POTENTIAL)
FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SMART; SM0191; Int_alpha; 4.
SMART; SM00327; VWA; 1.
PROSITE; PS00242; INTEGRIN_ALPHA; 1.
Integrin; PS10234; VWFA; 1.
Integrin; Cell adhesion; Receptor; Glycoprotein; Platelet; Signal; Repeat; Calcium; Magnesium.
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INTEGRIN ALPHA-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PIR; S44142; S44142.
HSSP; P17301; 1AOX.
MGD; MGD; MG196600; ItGa2.
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR02035; VWF.A.
Pfam; PF01839; RG-GAP; 3.
Pfam; PF00092; vwa; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  POTENTIAL
                                                                                                                                                                     not virus binding.";
Cell Adhes. Commun. 2:131-143(1994)
[2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VWFA.
                                                                                                                                                                                                                                                                                     SEQUENCE OF 450-1178 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; Z29987; CAA82877.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam; PF00092; vwa; 1.
PRINTS; PR01185; INTEGRINA.
PRINTS; PR00453; VWFADOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ASSOCIATES WITH BETA-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     483
546
607
664
504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     431
485
548
612
496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             185
```

737

905 928 955

871

```
985 LVTIHIPQYTKEKNPLLYLTGIQTDQAGDISCTAEINPLKLPHTA----PSVSFKNENFR
                                                                                       VKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQR-----SLPISLV
                                                                                                                                                                                                                                                                                         FLV-----PVRLNQTVIWDRPQVTF-SENLS
                                                                                                                                                                                                                                                                                                                                                                                                     STCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1041 YIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVG
   KNSTRRQTQVLGLTQTCET - - LKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVL
                                                                  .TFSFMSLDCLVVGGPREFNVT
                                                                                                                                  VIVRNDGEDSYRIQVIFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSI-EVSGALKSI
                                                                                                                                                                   VILKNRGESAYNTVVLAEFSENLFF------ASFSMPVDGTEVTCEVGSSQKSV
                                                                                                                                                                                                    SCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTE--FQLELP
                                                                                                                                                                                                                                                                                                                                                                                                                                        Ia) (GPIa)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Craniata, Vertebrata; Euteleostomi;
Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 X-RAY CRYSTALLOGRAPHY (2.1 ANGSTROMS) OF 168-368.
MEDLINE-98019223; PubMed-9353312;
Emsley J., King S.L., Bergelson J.M., Liddington R.C.;
"Crystal structure of the I domain from integrin alpha2betal.";
J. Biol. Chem. 272:28512-28517(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SECUENCE FROM N.A., AND SEQUENCE OF 30-44.

TISSUE=Endothelial cells;

MEDLINES=89308879; PubMed=2545729;

Takada Y., Hemler M.E.;

"The primary structure of the VLA-2/collagen receptor alpha 2 is possible Collagen. homology to other integrins and the presence of possible collagen-binding domain.";

Cell Biol. 109:397-407(1989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kuldanek
                      SERFLQKWMVVNEVQKCSEHHISIQKPS---DVVNPLDLRVDISLENPGTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. Rieder M.J., Armel T.Z., Carrington D.P., Ozuna M., Kulı Rajkumar N., Toth E.J., Yi Q., Nickerson D.A.; Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Integrin alpha-2 precursor (Platelet membrane (
(Collagen receptor) (VLA-2 alpha chain) (CD49b)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-AUG-1990 (Rel. 15, Created)
01-AUG-1990 (Rel. 15, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Я
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT; 1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GLLLLALITAALYKLGFFKRQYKDM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bukaryota; Metazoa; Chordata;
Mammalia; Butheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (BR)
                                                                                                                                                                                                                                                                                                                                                                                                                                      ---HTKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       [4]
VARIANT HPA-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1101
                                                                                                                                                                   824
                                                                                                                                                                                                                                     872
                                                                  738
                                                                                                   694
                                                                                                                                    789
                                                                                                                                                                                                    848
                                                                                                                                                                                                                                                                      906
                                                                                                                                                                                                                                                                                                    929
                                                                                                                                                                                                                                                                                                                                     926
                                                                                                                                                                                                                                                                                                                                                                                                       981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ITA2 HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                            셤
                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                             셤
                                                       8
                                                                                                                                  ઠે
                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                         44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GSCEPIRLO------VPVVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLC 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EGFSA--AITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT--RVDSDMN-DAYLGYA 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                      98
                                                                                                                                                                                                                                                                                                                                                                                                                        54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            - SKITLLNKDAKITLKLCFRAEFRPAGONNOV--AILFNMTLDADGHSSRVTSRGVFREN
                                                                                                                                                                                                                                                                                                                                                                                                                        1 FNLDTENAMTFQ-ENARGFGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQC--DYST
                                                                                                                                                                                                                                                                                                                                                                                                                                             FLFGSNLRQQPQ---KFPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  K - - KSKTLFSLMQYSBEFRIHFTFKEFQNNPNPRSLIKPITQLLG - RTHTATGIRKVVRE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LFNITNGARKNAFKILILITDGEKFGDPLGYEDVIPEADREGVIRYVIGV----GDAFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEKSROELNTVASKPPRDHVFQINNFEALKTIONQLREKIFAIEGTQTGSSSSFEHEMSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |||| | :: :| || |::|||:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VDVDSNGSTDLVLIGAPHYYEQTR--GGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSORIAGSKLSPR-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -LOYFGOSLSGGODLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    624 NDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALD----SGRPHSRAVFNET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANV----KGTQIGAYFGASLCS
                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                 (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                       Indels 188;
                                                                                                                                                                                                                                                                                                                                                      Score 1071; DB 1; Length 1178;
Pred. No. 1.9e-64;
                                 SITE (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MW; 1F194B9C0240F465 CRC64;
               POTENTIAL.

CELL ATTACHMENT SITE (POTENTIAL PROPERTY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

N-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC...) (IN-LINKED (GLONAC
                                                                                                                                                                                                                                                                                                                                                                                         208; Mismatches 487;
                                                                                                                                                                                                                                                                                                                                                     18.2%;
                                                                                                                                                                                                                                                                                                                       128926
                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                    429
457
472
696
1054
1071
                                                                                                                                                                                                                                                                                                                       Ą.
                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
Matches: 342; Conserval
                                                                                                                                                                                                                                     472
696
1054
1071
                                                                                                                                                                                                                                                                                                                       1178
CA_BIND
CA_BIND
SITE
SITE
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
CARBOHYD
                                                                                                                                                                                     CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                   CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            147
                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                        Query Match
 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

ø

S.A.,

1040

980

```
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                   Indels 188;
                                                                                                                                                                                                                                                                                                                                                                                       Length 1181;
                                                                                                                                                                                                                                                                                                                                                                             129295 MW; 7E1B7ED968A94070 CRC64;
          INTEGRIN ALPHA-2.
EXTRACELLULAR (POTENTIAL).
                         CYTOPLASMIC (POTENTIAL). INTERACTION WITH HPSS.
                                                                                                                                                                                           K -> E (IN ALLOANTIGEN dbsnP:1801106).
                                                                                                                                                                                                                                                                                                                                                                                       Query Match
18.2%; Score 1068; DB 1; Best Local Similarity 26.9%; Pred. No. 3.1e-64;
Matches 329; Conservative 214; Mismatches 494;
                                                                                                   BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
                                                                                                                                                                                                      /FTId=VAR 003977
                                                   FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 7.
POTENTIAL.
POTENTIAL.
GGFENT MOTIF.
                                    FG-GAP 1.
FG-GAP 2.
VWFA.
                                                                                                                                                                                                            507
1161
1951
737
737
737
737
1050
1105
1112
4460
475
699
1074
1074
1087
                                                                                                                                                                                                                      D-structure.
     SIGNAL
CCHAIN
CCHAIN
TRANSKEM
DOMAIN
DOMAIN
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
CA_BIND
CA_BIND
CA_BIND
                                                                                                     DISULPID
DISULPID
DISULPID
DISULPID
DISULPID
                                                                                                                                DISULFID
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                            HELIX
STRAND
HELIX
HELIX
                                                                                                                                                                                                                                                                                                                                        HELIX
TURN
```

43;

Gaps

**P** 

e.

		ě	
ě		ò	989 LPS
ò	1 FNLDTENAMTFQ-ENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYST 54	Ę	1048
qq	30 YNVGLPEAKIFSGPSSEQFGYAVQQFINPKGNWLLVGSPWSGFPENRMGDVYKCPVDLST 89	3	
2	55 GSCRDIBLOVovebavionsi GLSLabattsGDD/LacGDTRIANCSDTVINGS	ò	1049 LLI
<b>&gt;</b> 7		Q	1092 VQL
g n	AICEKLNLQISISIPNVIEMKINMSLGLILIKNMGIGGFLICGFLWAQQCGNQYYTIGVC	ò	1101 GEE
ò	108 FLFGSNLRQOPQKFPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLK 165	5	1142 GTI
qq	150 SDISPDF-QLSASFSPATQPCPSL-IDVVVVCDESNSIYPWDAVKNFLEKFVQGLDIG 205	}	
ò	ZYSEEFR HFTFKEFQNNPNPRSLIKPITQLLG-RŢ	RESU	RESULT 14
Dp	206 PTKTOVGLIOYANNPRVVPNLNTYKTKERMIVATSOTSOYGGDI.TNTFCATOYARKYAYS 265	TI I	TTAG HIMAN
}		AC A	075578; Q9UH
ò	AFKILILITDGEKFGDPLGYEDVIPEADREG	占	16-OCT-2001
В	266 AASGGRRSATKVMVVVTDGESH-DGSMLKAVIDQCNHDNILRFGIAVLGYLNRNALDTKN 324	3 E	28-FEB-2003
ò	280 SROELNTVASKPPRDHVFOINNFEALKTIONOLREKIFAIEGTOTGSSSSFEHEMSOEGF 339	e de	Integrin alp
7 1		SO	Homo sapiens
g	325 LIKEIKAIASIPTERYFFNVSDEAALLEKAGTLGEQIFSIEGTVQG-GDNFQMEMSQVGF 383	88	Eukaryota; M Mammalia; Eu
ò	`₹-	ŏ	NCBI_TaxID=9
qq	384 SADYSSQNDILMLGAVGAFGWSGTIVQKTSHGHLIFPKQAFDQILQDRNHSSYLGYSVAA 443	2 2 2	SEQUENCE FRO
ò	395 ILRNRVOSLVLGAPRYQHIGLVAMFRQNIGMWESNANVKGTQIGAYFGASLCSV 448	Z Z	MEDLINE=9835
Q	444 ISTGESTHFVAGAPRANYTGOIVLYSVNENGNITVIOAHRGDOIGSYFGSVLCSV 498	R R	"Isolation.
} ,		E E	alphaio, a b
ò	449 DVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPRGQRARMQCDAVLYGEQGQPWGRFG 506	R R	chondrocytes J. Biol. Che
qq		N. C	
ò	507 AALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPR 564	3 Z	TISSUE=Endot
d d	S56 SAIAALSDINMDGFNDVIVGSPLENONSGAVYIYNGHOGT-IRTKYSOKILGSDGAFRSH 614	X	MEDLINE=2016 Lehnert K.
è	LOVECOST, GCGODT TWOCT VAT TWO COUNT IT BEODY BUXA TWE BUBBENA BRITEDON	R E	Wang SX.,
<b>;</b>		RT	structure, a
g G	615 LQYFGRSLDGYGDLNGDSITDVSIGAFGQVVQLWSQSIADVAIEASFTPEKITLVNKN 672	<b>3</b> 8	Cytogenet. C
ò	625 DOVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETK 680	888	-!- SUBUNIT:
gp	673 AQIILKLCP-+SAKFRPTKQNNQVAIVYNITLDADGFSSRVTSRGLFKENN 721	38	- : - SUBCELLU
ò	681 NSTRROTOVIGLTOTC-+ETLKLOLPNCIEDDVSPIVIRIARSIVGTPISARGNIRPVIA 738	ខ	-!- TISSUE S
: £		ខ្ល	-!- DOMAIN:
3	ERCLEGASSIVANGAGOCKERTITICERODVVNOLDERVOLDERVOLDERVETORALE	ខ	-!- SIMILARI
ò	739 EDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGGPREFNVTVTVRND 794	ខខ	-!- SIMILARI
<b>Q</b> O	773 AYSETAKVFSIPFHKDCGEDGLCISDLVLDVRQIPAAQEQPFIVSNQNKRLTFSVTLKNK 832	ខ្ល	This SWISS-D
ò	795 GEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASST-EVSGALKSTSCSINH 853	ខេត	between the
qq	833 RESAYNTGIVVDFSENLFFASFSLPVDGTEVTCQVAASQKSVACDVGY 880	ខខ	the European
è	TANDA KAMAMATAN MATANA	ខ	modified and
ŝ		38	entities requered or el
셤	881 PALKREQOVTFTINFDFNLQ-NLQNQASLSFQALSESQEENKADNLVNLKIPLLYDAEI- 938	ម្ភ	EMBL: AF0740
ò	914 VTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLV 958	20.0	EMBL; AF1123
qq	939HLTRSTNINFYEISSDGNVPSIVHSFEDVGPKFIFSLKVTTGSVPVSMATVIIHIPQ 995	3 K I	HSSP; P17301
ò	959	<u> </u>	Genew; HGNC: MIM; 604042;
q	996 YTKEKNPLMYLTGVOTDKAGDISCNADINPLKIGOTSSSVSFKSENFRHTKE- 1047	2 E	GO; GO: 00083 GO: GO: 00048
		DR.	GO: GO: 00055

```
E FROM N.A.

Endothelial cells, and Heart;

=20169197; PubMed=10702680;

*X. Ni J., Leung E., Gough S.M., Morris C.M., Liu D.,

-X., Langley R., Krissansen G.W.;

tegrin alphalo subunit: expression pattern, partial gene
te, and chromosomal localization.";

et. Cell Genet. 87:228-244(1999).

CTION: INTEGRIN ALPHA-10/BETA-1 IS A RECEPTOR FOR COLLAGEN.

UNIT: HETERODIMEN OF AN ALPHA AND A BETA SUBUNIT. ALPHA-10

CELLULAR LOCATION: Type I membrane protein.

SUE SPECIFICITY: WIDELY EXPRESSED WITH HIGHEST EXPRESSIONS IN

CUE AND HEART: FOUND IN ARTICULAR CARTILAGE.

AIN: THE INTEGRIN I-DOMAIN (INSERT) IS A WWFA DOMAIN. INTEGRINS

H I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.

ILLARITY: CONTAINS I VWFA domain.

ILLARITY: Contains 7 FG-GAP repeats.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROT entry is copyright. It is produced through a collaboration to Swiss Institute of Bioinformatics and the EMBL outstation in Bioinformatics Institute. There are no restrictions on its nn-profit institutions as long as its content is in no way nd this statement is not removed. Usage by and for commercial equires a license agreement (See http://www.isb-sib.ch/announce/email to license@isb-sib.ch).
                                                  INSTABI-LFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNP----LP--LIVGSSVG 1100
                                                                                                                                                          LPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNH 1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tow N.A.

icular chondrocytes;

152078; PubMed=9685391;

Hellman U., Ludgren-Aakerlund E.;

cloning, and sequence analysis of the integrin subunit
betal-associated collagen binding integrin expressed on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
utheria; Primates; Catarrhini; Hominidae; Homo.
9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GO, GO:0008305; C:integrin complex; TAS.
GO; GO:0004895; F:cell adhesion receptor activity; TAS.
GO; GO:0005518; F:collagen binding activity; TAS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT; 1167 AA
                                                                                                                                                                                                                                                                        LLLLALVAILWKLGFFKRKYEKM 1166
                                                                                                                                                                                                                                        LLLALITAALYKLGFFKRQYKDM 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .8.";
hem. 273:20383-20389(1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           015; AAC31952.1; -. 345; AAF21944.1; -. 723; AAF61638.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (Rel. 40, Created)
(Rel. 40, Last seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (Rel. 41, Last appa-10 precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1; 1AOX.
:6135; ITGA10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DR
```

```
1054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1055 AEILFNDSVFTLLPGGGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYK 1114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             931
                                                                                                                                                                                                                                                                                 546
                                                                                                                                                                                                                                                                                                                                                           604
                                                                                                                                                                                                                                                                                                                                                                                                 621
                                                                                                                                                                                                                                                                                                                                                                                                                                       664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GQRLSPRRLRLSVG-NVTCEQLHFHVLD-TSDYLRPVALTVTFALDNTTKPG-----PVL 771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDC-----LVVGGPREFNVTV 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQY-------QVSNLG 946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ---QRSLPISLVFLVP-----VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSD 994
                                                                                                                                                                                       561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SINHPIFPENSEVTFNITFDVDSKASLG---NKLL----LKANVTSENNMPRTNKTEFQ 901
               330
                                                   368
                                                                                         385
                                                                                                                             369 GLEMSQIGFSTHRLKDGILFGMVGAYDWGGSVLWLEGGHRLFPPRMALEDEFPPALQNHA 428
                                                                                                                                                                 443
                                                                                                                                                                                                                                             501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -----SAYIQYEPH-----LLFSSESTLHRYEVHPYGTLPVGPGPEFKTTLRVQNLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         995 PLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DCRR----RGOEAVCLTAALCFQVTSRTPGRWDH----OFYMRFTASLDEWTAGARAAFDGS
                                                                                                                                                                                                                                                                     489 ELCPLDTDRDGTTDVLLVAAPMFLGPQNKETGRVYVYLV--GQQSLLTLQGTLQPEPPQD
                                                                                                                                                                                                                                                                                                                                             WGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKL
                                                                                                                                                                                                                                                                                                                                                                                                 562 SPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ECNDQVVKGKEAG--EVRVCLHVQKSTRDRLREGQIQSVVTYDLALDSGRPHSRAVFNET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     --KNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGALKSTSC
               FRSEKS----RQELNTVASKPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSF
                                       331 EHEMSQEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDS-----DMND
                                                                                                                                                                                                                                             SLCSVDVDSNGSTDLVLIGAPHYY - - EQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQP
                                                                                                                                                                 AYLGYA-AAIILRNRVQSLVLGAPRYQHIGLVAMFR-QNTGMWESNANVKGTQIGAYFGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (Rel. 16, Created)
(Rel. 16, Last sequence update)
(Rel. 42, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT; 1180 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LGFF-----KRQYK 1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LGFFAHKKIPEEEKREEK 1164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1990
01-NOV-1990
15-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ITA1 RAT
P18614;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     738
                                                                                                                                                                       386
                                                                                                                                                                                                                                                 444
                                                                                                                                                                                                                                                                                                                         502
                                                                                                                                                                                                                                                                                                                                                               547
                                                                                                                                                                                                                                                                                                                                                                                                                                           605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ITAL_RAT
ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         44446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         કે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ૪
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             જે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                   8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                         ሯ
                                                                                                                         8
                                                                                                                                                                     8
                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                       ठे
                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               44,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SVFSSGICARVDASFQPQGSLAPTAQR-CPTY-MDVVIVLDGSNSIXP--WSEVQTFLRR 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             191 LVGKLFIDPEQIQVGLVQYGESPVHEWSLGDFRTKEEVVRAAKNLSRREGRETKTAQAIM 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         83 NAPCAKGHLGDYQLGNSSHP-----AVNWHLGMSLLETDGDGGFMACAPLWSRACGS 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NTYVKGLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKBFIST 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KVVRELFNITNGARKNAFKILILITDGEKF-GDPLGYEDVIPEADREGVIRYVIGV-GDA 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23 FNLDEHHPRLFPGPPEAEFGYSVLQHVGGGQRWMLVGAPWDGPSGDRRGDVYRCPVGGAH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 160 VMEQL -- KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGR-THTATGIR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 FNLDTENAMTFQENARG-FGQSVVQLQGSR----VVVGAPQEIVAANQRGSLYQC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -----DYSTG-SCEPIRLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Score 1064.5; DB 1; Length 1167;
t; Pred. No. 5.3e-64;
201; Mismatches 493; Indels 171; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                   PROSITE; PS00242; INTEGRIN ALPHA; FALSE_NEG.
PROSITE; PS00242; INTEGRIN ALPHA; FALSE_NEG.
Integrin; Call adhesion; Receptor; Glycoprotein; Transmembrane; Signal; Repeat; Calcium; Magnesium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           > L (IN REF. 2).
> V (IN REF. 2).
> D (IN REF. 2).
AE7D3A1C25C1AEA0 CRC64;
                                                                                                                                                                                                                                                                     INTEGRIN ALPHA-10.
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                         CYTOPLASMIC (POTENTIAL). FG-GAP 1. FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GLCNAC. . . . GLCNAC. . . . (GLCNAC. . . .
                                                                                                                                                                                                                                                                                                                                                                                                     FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP
GO; GO:0007160; P:cell-matrix adhesion; TAS.
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002035; VWF_A.
                                                                                                                                                                                                                                                                                                             POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ٨
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ٨
                                                         Pfam; PF01839; FG-GAP; 3.
Pfam; PF00092; vwa; 1.
PRINTS; PR01185; INTEGRINA.
PRINTS; PR00453; VWFADOMAIN.
SMART; SM00191; Int. alpha; 4.
SMART; SM00327; VWA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18.1%;
29.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     127573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 353; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 921
1011
1018
1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ą.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100
                                                                                                                                                                                                                                                                         CHAIN
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BIND
                                                                                                                                                                                                                                                                                                                                 DOMAIN
REPEAT
REPEAT
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                           REPEAT
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                           REPEAT
```

셤

ઠે

8 6

8 6 8 6 8

ò

```
GSTDLVLIGAPHY------YEQTR-GGQVSVCPLPRGQRARWQCDAVLYGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          339
 CA_BIND
CA_BIND
SITE
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          59
                                                                    DISULFID
                                                                                                               CARBOHYD
                                                                                                                                                CARBOHYD
                                                                                         DISULFID
                                                                                                                                      CARBOHYD
                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                         DISULFID
                                                                                                     DISULFID
   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@alb-sib.ch)
                                                                                                                                                                                                                                                                                        -!- SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-1
ASSOCIATES WITH BETA-1
-!- SUBCELLULAR LOCATION: Type I membrane protein.
-!- DOMAIN: THE INTEGRIN I-TOWAINS ON TOT UNDERGO PROTEASE CLEAVAGE.
-!- SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
-!- SIMILARITY: Contains 1 PRG-GAP repeats.
                                                                                                                                                                             X-RAY CRYSTALLOGRAPHY (2.1 ANGSTROMS) OF 151-364.
MEDLINE=99313197; PubMed=10386626;
Nolte M., Pepinsky R.B., Venyaminov S.Y., Koteliansky V.,
Gotwals P.J., Karpusas M.;
"Crystal structure of the alphalbetal integrin I-domain: insights into integrin I-domain function";
                                                                                                                                                                                                                                               FEBS Lett. 452:379-385(1999).
-!- FUNCTION: INTEGRIN ALPHA-1/BETA-1 IS A RECEPTOR FOR LAMININ AND
COLLAGEN. IT RECOGNIZES THE PROLINE-HYDROXYLATED SEQUENCE G-F-P-G-
                                             Eukaryota, Metazoa, Chordața, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Rattus
                                                                                                 MEDLINE=90338125; PubMed=2380249; Ignatius M.J., Large T.H., Houde M., Tawil J.W., Barton A., Isasch F., Carbonetto S., Reichardt L.F.; Molecular cloning of the rat integrin alpha 1-subunit: a receptor for laminin and collagen."
  precursor (Laminin and collagen receptor) (VLA-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
Integrin; Cell adheaion; Receptor; Glycoprotein; Transmembrane; Signal; Repeat; Calcium; Magnesium; 3D-structure.
1 SIGNAL 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EXTRACELLULAR (POTENTIAL)
POTENTIAL.
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INTEGRIN ALPHA-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VWFA.
FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
PG-GAP 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PIR, A35654, A5885.

PDB; 1CK4; 03.MAY-00.

INTERPO: IPR000413; INTEGRIN_alpha.

INTERPO: IPR002035; WWF A.

Pfam; PF001839; FG-GAP; 3.

Pfam; PF001839; FG-GAP; 3.

Pfam; PF00185; integrin_A; 1.

PRINTS; PR00185; INTEGRINA.

PRINTS; PR00185; INTEGRINA.

SWART; SM00191; INT_alpha; 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; X52140; CAA36384.1;
                              Rattus norvegicus (Rat)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          103
                                                                                                                                                                                                                                                                                 E-R IN COLLAGEN.
                                                                                         SEQUENCE FROM N.A.
                                                                   NCBI_TaxID=10116;
Integrin alpha-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHAIN
DOMAIN
TRANSMEM
DOMAIN
REPEAT
REPEAT
DOMAIN
REPEAT
             (CD49a).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REPEAT
REPEAT
REPEAT
CA_BIND
```

```
47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  279 KSRQELNTVASKPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEG 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     107 CFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLK- 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT--RVDSDMND---AYLGYAAA 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSN 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         322 KFVEEIKSIASEPTEKHFFNVSDELALVTIVKALGERIFALEATADOSAASFEMEMSOTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FNLDTENAMTFQENARG-FGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQCDYSTGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           57 CEP-IRLOVPVEA------VNMSLGLSLAATTSPPOLLACGPTVHQTCSENTYVKGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          89 AMPCVKLDLPVNTSIPNVTEIKENMTFGSTL-VTNPNGGFLACGPLYAYRCGHLHYTTGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             166 -KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLG-RTHTATGIRKVVRELF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               203 GPKÓTQVGIVÓYGENVTHEFNLNKYSSTEEVLVAANKIGROGGLÓTMTALGIDTARKEAF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              224 NITNGARKNAFKILILITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFR----SE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     382 FSAHYSQDWVMLGAVGAYDWNGTVVMQKANQMVIPHNTTFQTEPAKMNEPLASYLGYTVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
18.1%; Score 1062; DB 1; Length 1180;
Best Local Similarity 27.4%; Pred. No. 8e-64;
Matches 344; Conservative 201; Mismatches 478; Indels 234; Gaps
                                                                                                                                                                                                                                                                                                                                                                                            (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8E5DA2BE02362EE4 CRC64;
                                                                                                                                                                                                                                                                                                    (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                              (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                  GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GLCNAC
                                                                                 BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIM
POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    938 938 N-LIN
965 965 N-LIN
107 107 N-LIN
1084 1084 N-LIN
1103 1103 N-LIN
1114 1113 N-LIN
1114 1114 N-LIN
1116 AA, 130808 MW, 8
```

				1 PSGGDGKTLKFFĞQSIHGEMDLNGDĞLTDVTIGGLGGAALFWARDVAVVKVTMNFEPNKV 680	7 ARNVFECNDQVVKGKEAGEVRVCLHVQ-KSTRDRLREGQIQSVVTYDLALDSGRPHSR 673			4 SFFSGTQERKIQRNITVRESECIRHSFYMLDKHDFQDSVRVTL 776	9 NFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLV 778	7 DFNLT-DPENGPVLDDALPNSVHEHIPFAKDCGNKERCISDLTLNVSTTEKSLLI 030	9 VGGPRE-FNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASS 837		8 TEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLL-LKANVTSENNMPRIN 896	1QNITCRVGYPFLRAGETVTFKIIFQFNTSHLSENAIIHLSATSDSEEPLESLN 933	7 KTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNL 945	4 DNEVNISIPVKYEVGLQFYSSASEHHISVAANETIPEFINSTEDIGNEINVFYTIRKR 991	6 GQRSLPISLVF	2 GHFPMPELQLSISFPNLTADGYPVLYPIGWSSSDNVNCRPRSLEDPFGINSGKK 1045	3 VIPSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019	6 MISKSEVLKRGTIODGSSTCGVATITCSLLPSDLSQVNVSLL 1088		9 LWKPTF-IRAHFSELULTLRGEUKSENSSLTLSSSN 1123		4 RKRELAIQISKDGLPGRVPLWVILLSAFAGLLLIMLLILALWKIGFFKRPLKKKMEK 1180	
505	498	562	557	621	617	681	674	734	719	177	779	831	838	881	897	934	946	992	973	1046	1020	1089	1074	1124	
අු	ò	<b>q</b> 0	ò	OP	ò	QΩ	ò	QQ	δ	qq	ò	οp	ò	QD	ò	qq	ò	qg	ò	qa	ò	qq	ò	qa	

Search completed: November 25, 2003, 14:17:34 Job time: 13:1742 secs

1018.5 17.3 1160 6 QBMKF4 1018 17.3 895 11 Q9WF8 865 14.7 348 4 QBTES5 850 14.5 1332 5 Q9BPQ8 808 13.8 205 11 Q63001 753.5 12.8 780 13 Q06271 738 12.6 823 4 QBWY18	25 669 11.4 1032 11 Q61989 Q61989 mus musculu 26 643 10.9 1036 11 Q91YD5 Q91Yd5 mus musculu 27 642.5 10.9 1033 6 Q98Q33 Q91Yd5 mus musculu 28 623.5 10.6 257 11 Q8C270 Q8C270 Q8C270 mus musculu 29 619.5 10.5 1041 5 Q9UB90 Q9ub90 1ytechinus 31 579.5 9.9 1054 5 Q9US31 Q9BTT7 Q9BTT7 Q9BTT7 Q9BTT7 Q9BTT7 Q9BTT7 Q9BTT7 Q9BTT7 Q9BTT7 Q9BTT7 Q9BTT7 G9ST xenopus lae 35 550 9.4 1033 13 Q91779 Q9177 G92443 24 534 9.1 1016 13 Q91779 G92443 24 2578 25 9.5 9.7 1006 25 25 25 25 25 25 25 25 25 25 25 25 25	529 9.0 1073 11 Q8CC05 526 9.0 1073 11 Q8CC05 525.5 9.0 1047 6 Q9MZD6 512.5 8.7 1034 6 Q9TUN4 509.5 8.7 1034 6 Q9TUN4 491.5 8.4 1012 11 O70304 491.5 8.4 1049 5 Q8EX51 475 8.1 1036 6 Q9TU44 469.5 8.0 1036 6 Q9TU44 468.5 8.0 604 11 Q8BQ25	RESULT 1  09J130  1D 09J130  PREJIMINARY; PRT; 1151 AA.  AC 09J130;  DT 01-OCT-2000 (TrEMBLrel. 15, Last sequence update)  DT 01-OCT-2000 (TrEMBLrel. 23, Last annotation update)  DT 01-MAR-2003 (TrEMBLrel. 23, Last annotation update)  DT 01-MAR-2003 (TrEMBLrel. 23, Last annotation update)  DE Integrin beta 2 alpha subunit.  DE Rattus norvegicus (Rat).  OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.  NOBI TaxID=10116;  RN   1]  RP SEQUENCE FROM N.A.  RA Fathallah D.M. Sr., Zerria K. Jr.;  RT "Cloning of the rat CD11b cDNA sequence.";  RI Submitted (MAY-2000) to the EMBL/GenBank/DDBJ databases.	DR HSSP; P1215; 18HQ.  DR HSSP; P1215; 18HQ.  DR InterPro; IPR0004315; VWP_A.  DR Ffam; PP001839; FG-GAP; 5.  DR Pfam; PP00187; integrin_A; 1.  DR Pfam; PP0037; integrin_A; 1.  DR PRINTS; PR001465; INTEGRINA.  DR PRINTS; PR00145; VWFADOWAIN.  DR PRINTS; PR00145; VWFADOWAIN.  DR PROSITE; PS00242; INTEGRINA.  DR SNART; SM00137; VWA; 1.  DR SNART; SM00137; VWA; 1.  DR SNART; SM00137; VWA; 1.  DR SNART; SM00140; INTEGRINA.  DR SNART;
GenCore version 5.1.6  Copyright (c) 1993 - 2003 Compugen Ltd.  OM protein - protein search, using sw model  Run on: November 25, 2003, 14:11:54; Search time 33.1068 Seconds	(without alignments) 862.397 Million cell updFKRQYKDMMSEGGPPGAEPQ	inimum bB seq length: 0 aximum bB seq length: 0 aximum bB seq length: 200000000  set maximum Match 0*  Maximum Match 100*  Listing first 45 summa  atabase: SPTREMBL 23:*  1: sp archer:*	1. sp_fungi:*  2. sp_human:*  5. sp_human:*  6. sp_mammal:*  7. sp_mammal:*  8. sp_organelle:*  9. sp_hage:*  10. sp_plant:*  11. sp_rodent:*  12. sp_virus:*  13. sp_vritebrate:*  14. sp_unclassified:*  15. sp_archeap:*  17. sp_archeap:*  17. sp_archeap:*  17. sp_archeap:*  17. sp_archeap:*  18. score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.	Result Ouery No. Score Match Length DB ID Description  1 4381 74.6 1151 11 094130 095130 ratus norv 08623 muse musculu 28905.5 66.4 920 6 028984 08623 muse musculu 08645.5 56.5 1169 4 081VA6 08984 sus scrofa 08146.5 55.2 1161 11 099WTV4 0

8 6 8 6

```
οŧ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TDGEKFGDPLGYEDVI PEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTWDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NFEALKTIONQLREKI PALEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                    FNLDTENAMTFQENARGFGQSVVQLQGSRVVVQAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                  FPEALRECPQQESDIVFLIDGSGSINNIDFQKMKEFVSTVMEQFKKSKTLFSLMQYSDEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                               Team;
annotation
                                                                                                    Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                          Length 1036;
                                                                                                                                                                                                                                                                                                119;
                                                                                                                                                                                              > Phase I & II
on functional
                                                                                                                                                                                                                                                                         11;
                                              Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                          -.
MW; 4F4F39BF1E188E77
                                                                                                                                                                                                                                                                       66.4%; Score 3901.5; DB 1;
llarity 66.1%; Pred. No. 6.1e-281;
Conservative 125; Mismatches 142;
                                                                                                                                                                                              n Group
based o
                        Z
                                                                                                                                              SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUB=Spinal cord;
MEDLINE=2254683; PubMed=12466851;
The FANTOM CONSORTIUM,
the RIKEN Genome Exploration Research Gri
"Analysis of the mouse transcriptome bass
60,770 full-length cDNAs";
Nature 420:563-573 (2002).
EMBL; AK039444; BAC30350.1; -.
SEQUENCE 1036 AA; 115126 MW; 4F4F39B
RESULT 2
08CA73
1D Q6CA73;
AC Q8CA73;
PR. Q6CA73;
DT 01-MAR-2003 (TEMBLrel. 23, Creat DT 01-MAR-2003 (TEMBLrel. 23, Last DT 01-MAR-2003 (TEMBLrel. 23, Last DT 01-MAR-2003 (TEMBLrel. 23, Last DE Integrin alpha M. CS Mammalia; Eutheria; Rodentia; SC CC Mammalia; Eutheria; Rodentia; SC CC Mammalia; Eutheria; Rodentia; SC CC Mammalia; Eutheria; Rodentia; SC CX NCBI TaxID=10090;
RN | 11)
RP SEQUENCE FROM N.A.
RC STRAIN=C57BL/6J; TISSUE=Spinal CC RX MEDLINE=22354683; PubMed=1246685; RX MEDLINE=22354683; PubMed=1246685; RA The FANTOM CONSOTTIUM, RA THE RIKEN GENOME EXPIDRATION RESERVATION CONSOTTIUM, RA THE ANTOM CONSOTTIUM, RA THE ANTOM CONSOTTIUM, RA THE ANTOM CONSOTTIUM, RESERVATION CONSOTTIUM, RESERVATION CONSOTTIUM, RA THE SANTOM CONSOTTIUM, RESERVATION CONSOTTIUM, RA THE SANTOM CANSOTTIUM, RESERVATION CONSOTTIUM, RA THE SANTOM CANSOTTIUM, RESERVATION CONSOTTIUM, RA THE SANTOM CANSOTTIUM, RESERVATION CANSOTTION CANSOTTIUM, REMBL, ANSOTOTIUM, PARENTER AND CANSOTTIUM, REMBL, ANSOTOTIUM, PARENTER AND CANSOTTIUM, REMBL, ANSOTOTIUM, CS SEQUENCE 1036 AA; 115126 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       :| | || : ::||
ENFGTWEPHTSIKG-
                                                                                                                                                                                                                                                                                    Local Similarity
nes 752; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       317
                                                                                                                                                                                                                                                                            Match
                                                                                                                                                                                                                                                                                                                      Н
                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                        11
                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 501
                                                                                                                                                                                                                                                                                      Best Local
                                                                                                                                                                                                                                                                            Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                             8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                  र्व क्षे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                            ⋧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      914
                                                                                                                                                                                                                                                     436
                                                                                                                                                                                                                                                                                                 496
                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                         615
                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                     675
                                                                                                                                                                                                                                                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  974
                       136
                                               180
                                                                    196
                                                                                            240
                                                                                                                256
                                                                                                                                      300
                                                                                                                                                                                    360
                                                                                                                                                                                                        376
                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                            555
                                                                                                                                                                                                                                                                                                                                                                                                             TDGEKFGDPLGYEDVI PEADREGVIRYVIGYGDAFRSEKSROELNTVASKPPRDHVFQIN
                                                                                                                                                                                  NFEALKTIONOLREKIFAIEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                               SCALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QLELPVKXAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PPGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ONTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                       HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                             YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                           FPEALRGCPQEDSDIARLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                317
                                                                                                                                                                                                                                                                                                                                            497
                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1035
                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                           556
                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                      919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                               121
                                                                                            181
                                                                                                                 197
                                                                                                                                       241
                                                                                                                                                             257
                                                                                                                                                                                    301
                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                     377
                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                  437
                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
```

6 B 6

6 6 6

6 6 6

6 6 6

9 6

ά.

60

120

180 196 240

300 316 360 376 480

420

<u>ک</u> ۾

중 음

9 & 9 19 & 19 6 B 6

원 상

8 S

g

237

ž.

```
780 TEFQLELPVKYAVYVVTSLEVSTKYFNFTASEKTRHVIEHQYQFNNLGQRKLDISVVFW
                                                                                                                                                                                                                                                                                                                                                                      720 TEESTALKSTSCSINHPIFPDNSEVTFNVTFDVNPDAFLGYKLLLKANVTSENNMPSSNK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 WAGGAFLHMPKDRVIFINTTRVDSDMNDAYLGYAVEVILRNQAQSLVLGAPRYQHTGLVV
                                                                                                                                                                                                 RSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQS
                                                                                                                                                                                                                                                                                                                                                                                                                    LNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCL
                                                                                                                                                                                                                                                                                                                                                                                                                                TEVSGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQC
 EEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKIL
             181 QVNNFBAVKTIQNQLQEKTFAIEGTQTGSTSSFECEMSQEGFSAAITSNGPLLGAVGSFD
                                                                                                                                      WAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVA
                                                                                                                                                                                                                                             YLPHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTWGGLVDLTVGAQGHVLLL
                                                                                                                                                                                                                                                                                           YLFHGTSELGISPSHSQRIAGSQLSPRLQYFGQSLSGGQDLTMDGLMDLAVGAQGHVFLL
                                                                                                                                                                                                                                                                                                                                       QINNFEALKTIONOLREKIFALEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYD
                                                                                                                                                                                     MFRQNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSV
                                                                                                                                                                                                                                 CPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q8IVA6 PRELIMINARY; PRT; 1169 AA.
Q8IVA6;
Q8IVA6;
Q8IVA6;
Q1-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
Integrin, alpha X (Antigen CD11C (p150), alpha polypeptide).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TAXID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DIPFFGIOEEFNATLKGNLSF 1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1018
                                                                                                                                                                                   418
                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                            538
                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                           598
                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                           009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         928
                                                                                                                                       358
                                                                                                                                                                                                                                 478
                                                                                                                                                                                                                                                                                                                                                                                                                     718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            900
 178
                      61
                                                                                         298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT (
981VA6
1D 081VA6
DT 081
DT 011
DT 011
DD DT 010
OS HOR
                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                              셤
                                                                                                         셤
                                                                                                                                      ઠે
                                                                                                                                                        유
                                                                                                                                                                                                    ద
                                                                                                                                                                                                                             6 B 6
                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                           윱
                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                   ద
                                       ઠે
                                                                                  ઠે
                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                 VRLNQTVIWDRPQVIFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                            PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ij
                                                                                                                                                                                                          828
                      618
                                             780
                                                                   678
                                                                                           839
                                                                                                               738
                                                                                                                                       899
                                                                                                                                                  959
                                                                                                                                                                                                                                              POKFPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYS 177
                                                                                                                                                                                                                                                                                                                         9
                                                                                                       YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
             SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                          GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRL-ACESASSTE
                                                                                                                                       840 VSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTE
                                                                                                                                                                                     FQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Euteleostomi;
Sus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6; Length 920;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lee J.-K., Schook L.B., Rutherford M.S.,
Submitted (NOV-1995) to the EMBL/GenBank/DDBJ databases.
REMBL, 140072; AAB16866.1; -.
REMBL, 140072; AAB16866.1; -.
Interpro; IPR000413; Integrin_alpha.
Interpro; IPR0013; VWF.A.
REMI, PF00192; PG-GAP; 4.
REMITS; PR01185; INTEGRINA.
REMITS; PR01185; INTEGRINA.
REMART; SM00191; Int.alpha; 4.
REMART; SM00191; Int.alpha; 4.
REMART; SM00191; Int.alpha; 4.
REMART; SM00191; Int.alpha; 4.
REMART; SM00191; Int.alpha; 4.
REMART; SM00191; Int.alpha; 4.
REMART; SM00191; Int.alpha; 4.
REQUENCE 920 920
REQUENCE 920 AA; 102440 MW; E96CC51E350DD5AC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 3809.5; DB 6; Length
Pred. No. 3.5e-274;
84; Mismatches 109; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sus scrofa (Pig).

Eukaryota, Metazoa, Chordata, Craniata, Vertebrata,
Mammalia, Eutheria, Cetartiodactyla, Suina, Suidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                           Ź
                                                                                                                                                                                                                                                                                                                                                                                                          920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          64.8%;
78.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-1996 (TrEMBLrel. 01, 01-FEB-1997 (TrEMBLrel. 02, 01-MAR-2003 (TrEMBLrel. 23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 78.99
Matches 727; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CD11b (Fragment).
                                                                                                                                                                                     900
                                                                                                                                                                                                          199
                                                                                                                                                                                                                                 096
                                                                                                                                                                                                                                                        859
                                                                                                                                                                                                                                                                             1020
                                                                                                                                                                                                                                                                                                    919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                              721
                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                          028984
                                                                                                                                                                                                                                                                                                                                                                                   m
                                                                                                                                                                                                                                                                                                                                                                                  RESULT
Q28984
                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                               g
                                                                                       ò
                                                                                                         g
                                                                                                                                      ò
                                                                                                                                                       g
                                                                                                                                                                               ò
                                                                                                                                                                                                    임
                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                 8 8
                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                   g
```

1017

974

1034

```
1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                           241 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SLQVPPEAVNISLGLSLAAATNPSWLLACGPTVHHTCRENIYLTGLCFLLSSSFKQS-QN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                              "Isolation of Genes Selectively Expressed by Dendritic Cells."; Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AF211864; AAF23492.1; -.
HSSP; P11215; 1BHQ.
MGD; MGI:96609; Itaax.
InterPro; IPR000413; Integrin_alpha.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 11; Length 1169;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19;
                                                                                                                          TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                              01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
Leukocyte adhesion glycoprotein p150,95 alpha integrin subunit.
                                                                                                                                       Query Match 56.5%; Score 3320.5; DB 11; Lengt
Best Local Similarity 56.8%; Pred. No. 1.3e-237;
Matches 647; Conservative 172; Mismatches 302; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1169 AA; 129150 MW; C616412033C219A6 CRC64;
                                                                                                                                                                                                                                                                                                                                                           F.-M., Tseng
                                                                                                                                                                                                          æ
                                                                                                                                                                                                          PRT; 1169
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pfam; PF01839; FG-GAP; S.
Pfam; PF00357; integrin_A; 1.
Pfam; PF000957; vwa; 1.
PRINTS; PR01185; INTEGRINA.
PRINTS; PR00185; VWFADOMAIN.
SMART; SM00191; Int alpha; 4.
SMART; SM00127; VWA; 1.
PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
Huang X., Gorski K., Tong C., Rattis
Tsuchiya H.;
                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Integrin.
SEQUENCE
                                                                                                                           1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              199
               915
                                                                                                                                                                                                                                                                              ITGAX
                                                                                                                                                                                    'n
                                                                                                                                                                                   RESULT
Q9QXH4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                            8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ठ है ठ
                            ઠે
                                                   셤
                                                                               ઠ
                                                                                                음 &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     796
                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9/9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  854
                                                                                                                                                                                    120
                                                                                                                                                                                                          137
                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                      197
                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                   257
                                                                                                                                                                                                                                                                                                                          TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                 GAFLYPPNMSPTFINMSQENVDMRDSYLGYSTELALMKGVQSLVLGAPRYQHTGKAVIFT 437
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ONTGMWESNANVKGTOJGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QVSRQWRMKAEVTGTQIGSYFGASLCSVDVDSDGSTDLVLIGAPHYYEQTRGGQVSVCPL 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  556
                                                                                                                                        9
                                                                                                                                                              79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SLVGTPLSAFGNLRFVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SQGTWSTSCRINHLIFRGGAQITFLATFDVSPKAVLGDRLLLTANVSSENNTPRTSKTTF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMOHOYOVSNLGORSLPISLVFLVP
                                                                                                                                                                                                                                              PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661 YDLALDSGRPHSRAVPNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SNLELNAEVMVWNDGEDSYGTTVTFSHPAGLSYRYVAEGQKQGQLRSLHLTCDSAPVG--
                                                                                                                                                                                                   GLQVPPEAVNMSLGLSLAASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR
                                                                                                                                                                                                                                                                                                                                                                                                                   GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                       61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                 121 FPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                               RIHFTFKEFQNNPNPR$LIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILLLI
                                                                                                                                        1 FNLDTENAMIFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                   Gaps
                                                                                                                   .
9
                                                                                          Length 1169;
                                                                                                                  Indels
                                                EMBL/GenBank/DDBJ databases
              SEQUENCE FROM N.A.
TISSUE=Blood;
Straubberg R.;
Submitted (SEP-2002) to the EMBL/GenBank/DDBJ data EMBL; BCO38237; AAH38237.1; -.
SEQUENCE 1169 AA; 128521 MW; A178484FEFC79EB6
                                                                                           t; Score 3480; DB 4;
t; Pred. No. 1.7e-249;
141; Mismatches 291;
                                                                                            59.2%;
61.2%;
                                                                                                        Best Local Similarity 61.2
Matche's 691; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   797
                                                                                                                                                                                                                                                                                                                                                                                                                                           378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                           80
                                                                                                                                                                                                                                                       138
                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                   258
                                                                                                                                                                                                                                                                                                                                                                                              318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    498
                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                    198
                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 6 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     දු පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ે
    a
                                                                                                                                                                                                    g
                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                    상 점
                                                                                                                                                                                                                                                                                                                   8 8 8
                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                             B &
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                다
다
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                          ઠે
                                                                                                                                                                                   8
```

7;

120

us-09-902-481b-5.rspt

õ

```
g
                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                       중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                  දු පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                        ઠે
                                                                                                                                                                                                    g
                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                             1008
                                                                                                                                                                                                                                                                                                                                                                         1068
                                                                                                                                                                                                                                                                                                                                                                                                                   1152
                                                                                                                                                                                                                                                                                                                                                     GQGAFVRSQTETKVEPFBVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                      600
                                                                                                                                                                                               720
                                                  420
                                                                              480
                                                                                           498
                                                                                                          540
                                                                                                                        557
                                                                                                                                                    617
                                                                                                                                                                  99
                                                                                                                                                                                 675
                                                                                                                                                                                                             735
                                                                                                                                                                                                                           SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 780
                                                                                                                                                                                                                                        795
                                                                                                                                                                                                                                                       829
                                                                                                                                                                                                                                                                     855
                                                                                                                                                                                                                                                                                    889
                                                                                                                                                                                                                                                                                                  913
                                                                                                                                                                                                                                                                                                                 948
                                                                                                                                                                                                                                                                                                                              973
                                                TDGRKQGDNLSYDSVIPMAEAASIIRYAIGVGKAFYNEHSKQELKAIASMPSHEYVFSVE
                     NFBALKTIONOLREKIFAIEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                             ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                     PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                               HGASRQDIAPSPSQRISASQIPSRIQYFGQSLSGGQDLTRDGLVDLAVGSKGRVLLLRTR
                                                                                                                                                                  PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                         YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                        GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQ------NQRSQRSWR
                                                                                                                                                                                                                                                                                   LACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSE
                                                                                                                                                                                                                                                                                           NNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASE-NTSRVMQHQYQVSNLGQR
                                                                                                                                                                                                                                                                                                                        SLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCS
                                                                                                                                                                                                                                                                                                                                                                        IAVCQRIQCDIPFFGIQEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLP
                                                                                                                                                                                                                                                                                                                                                                                                             Craniata; Vertebrata; Buteleostomi;
Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rattus norvegicus (Rat).
Eukaryota, Metazoa, Chordata,
Mammalia, Eutheria, Rodentia,
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-MAY-2000 (TrEMBLrel. 13, 01-MAY-2000 (TrEMBLrel. 13, 01-MAR-2003 (TrEMBLrel. 23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Alpha D integrin.
                                                                                                                                      541
                                                                                                                                                                                               . 199
                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                890
                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                   830
                                                                                                                        499
                      301
                                                                                                          481
                                                                                                                                                                  601
                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q9QYE7
                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT (
                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                  g
                     ò
                                  g
                                                            Q
                                                                             ó
                                                                                       6 ይ
                                                                                                                  8 8
                                                                                                                                               g
                                                                                                                                                             ò
                                                                                                                                                                              g
                                                                                                                                                                                             ઠે
                                                                                                                                                                                                         g
                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                    8 6
```

```
ė,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQKF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EARHWRPKSEVRGTOIGSYFGASLCSVDVDRDGSTDLVLIGAPHYYGOTRGGOVSVFPVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             182 IHFTFKEFONNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILILIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               200 THFTFTEFKNILDPQSLVDPIVQLQGLTYTATGIRTVMEELFHSKNGSRKSAKKILLVIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQINN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVOSLVLGAPRYOHIGLVAMFRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  500 -GVRGRWQCEATLHGEQGHPWGRFGVALTVLGDVNGDNLADVAIGAPGEEESRGAVYIFH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 NLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPIR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NTGWWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFS
                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                              Ouery Match 55.2%; Score 3244.5; DB 11; Length 1161; Best Local Similarity 57.6%; Pred. No. 5.7e-232; Matches 649; Conservative 163; Mismatches 302; Indels 13;
                                  ö
                                           Gallatin W.M.;
Gallatin W.M.;
"Cloning of rat alpha D, a novel beta 2 integrin.";
"Cloning of rat alpha D, a novel beta 2 integrin.";
"Cloning of rat alpha D, a novel beta 2 integrin.";
"Submitted (AUG-1997) to the EMBL/GenBank/DDBJ databases.
EMBL; AF02134; ARF21241.1;
"InterPro; IPR000413; Integrin.alpha.
InterPro; IPR0020413; Integrin.alpha.
Pfam; PF01839; FG-GAP; 5.
Pfam; PF01839; FG-GAP; 5.
                                                                                                                                                                                                                                                                                                                                               1161 AA; 126600 MW; 2258491A984A705E CRC64;
                                  Dietsch
                STRAIN=Sprague-Dawley;
O'Brien M.M., VanderVieren M., Kilgannon P.D.,
                                                                                                                                                                                                                                                       SMART; SMO0191; Int_alpha; 4.
SMART; MO0327; WWA; 1.
PROSITE; PS00242; MINTEGRIN_ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                                                                       PRINTS; PR01185; INTEGRINA.
PRINTS; PR00453; VWFADOMAIN
FROM N.A
                                                                                                                                                                                                                                                                                                                             Integrin.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              482
                                                                                                                                                                                                                                                                                                                                                                               Query Match
```

.

g

g ò

ò

ద

9 ò 요 ò g ò 셤

ò

```
KE-RLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKT 1044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EDLKRPSSE---AEQPCLPGV------QFRCPIVF---RREILIQVTGTVELSKEIKA 1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          934
                 138
                                               179
                                                                                                              238
                                                                                                                                             258
                                                                                                                                                                                                                                              351
                                                                                                                                                                                                                                                                                                             409
                                                                                                                                                                                                                                                                                                                                           424
                                                                                                                                                                                                                                                                                                                                                                          467
                                                                                                                                                                                                                                                                                                                                                                                                            484
                                                                                                                                                                                                                                                                                                                                                                                                                                           527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         827
                                                                              198
                                                                                                                                                                             291
                                                                                                                                                                                                             304
                                                                                                                                                                                                                                                                           364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VMQHQYQV---SNLGQRSLPISLVFLVPVRLNQTVIWDRPQ--VTFSENLSS----TCHT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLL
                                                                                                                                                                                                                                                                  PGEEDNRGAVYLFHGTSGSG1SPSHSQR1AGSKLSPRLQYFGQSLSGGQDLTMDGLVDLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PQ--FQGRLLANLSYTLQLDGHRMRSRGLFPDGSHELSGNTSITP-DKSCLDFHFHFPIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            707 IEDPVSPIVLRINFSLV---GTPLSAFGN-LRPVLAEDAQRLFTALFPFEKNCGNDNICQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DDLSITFSFMSLDCLVVGGP-----REFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LGNKLLLKANVTSEN-NMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSR
80 VSLH-GSNHTSKYLGWTLATDAAKGSLLACDPGLSRTCDQNTYLSGLCYLFPQSLGFPML
                                                                                                                                                                                                                                                                                                                                                                                                                                                             VGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAG-EVRVCLHVQKST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STLONORSORSWRLACESASSTEVSGAL-KSTSCSINHPIFPENSEVTFNITFDVDSKAS
                                                                  FRIHFTFKEF-QNNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILI
                                                                                                                                   LITDGEKFGDPLGYEDVIPEADREG------VIRYVIGVGDAFRSEKSRQELNTVASKP
                                                                                                                                                                                              PRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLS
                                                                                                                                                                                                                                                                                                                                   YOHIGLVAMER -- ONTOWNESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYY
                                                                                                                                                                                                                                                                                                                                                                                             EQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGA
                                                 KFPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEE
                                                                                                                                                                                                                                                                                                                TVGSYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LALITAALYKLGFFKRQYKDMM-SEGGPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              =
=
=
=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                588
                                                                                                                                                  199
                                                                                                                                                                                 239
                                                                                                                                                                                                                 259
                                                                                                                                                                                                                                                 292
                                                                                                                                                                                                                                                                                305
                                                                                                                                                                                                                                                                                                                352
                                                                                                                                                                                                                                                                                                                                                 365
                                                                                                                                                                                                                                                                                                                                                                                 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                468
                                                   120
                                                                                   139
                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 6 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ያ ያ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       음 성 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ક
                                                                                                                                                                                                                                                                       용
                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                            ద
                                                                                                                  ò
                                                                                                                                             쉱
                                                                                                                                                                             ઠે
                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                              ઠે
                                          ે
                                                                                                                                                                                                                                                                                   1019
                                                                                                                                                                                                                                                                                                                1029
                                                                                                                                                                                                                                                                                                                                                 1079
                                                                                                                                                                                                                                                                                                                                                                                 1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQ 119
                                                                                                                                                                                                                    960
                                                    795
                                                                                     841
                                                                                                                   854
                                                                                                                                                    901
                                                                                                                                                                                    912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                79
                      781
                                                                                                                                                                                                                 YNLDTRPTQSFLAQAGRHFGYQVLQIEDG-VVVGAPGE---GDNTGGLYHCRTSSEFCQP
                                                                                                                                                                      --LRSSSCSINHPIFREGAKTTFMITFDVSYKAFLGDRLLLRAKASSENNKPDTNKTAFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 FNLDTENAMTFQENA-RGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEP
                                                                                                                                                                                                                                                                                                                                                  PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSQTE
                                                                                                                                                     GALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEFQ
                                                                                                                                                                                                                                                                                                    LVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGG
                                        PREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVS
                                                                                                       SPELTVTVTVWNEGEDSYGTLVKFYYPAGLSYRRVTGTQ-QPHQYPLRLACEAEPAAQED
                                                                                                                                                                                                                                                                                   RLNQTVIWDRPQVTFSENLSS-TCHTKERLPSHSDFLABLRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 101; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
STRAIN=DBA/2J; TISSUE=Spleen;
A Ma R.Z., TENSCHER C.;
Submitted (MAY-1998) to the EMBL/GenBank/DDBJ databases.
EMBL; ACCSSO2, AAD25885.1; -..
RMSP; P20701; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD; MG1901; 1.FA.
RMSD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1161 AA; 128240 MW; 86B102F7B209E431 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1534.5; DB 11;
Fred. No. 9.6e-105;
217; Mismatches 456; I)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PEAM, PF00092; vwa; 1.
PRINTS; PR00185; INTEGRINA, PRINTS; PR00133; VWFADOMAIN.
SMART; SM00191; Int_alpha; 5.
SMART; SM00327; VWA; 1.
PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS00242; INTEGRIN ALPHA; 1.
SEQUENCE 1161 AA; 128240 WW; 66810;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26.1%;
illarity 34.0%;
Conservative 217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1999 (TrEMBLrel. 12)
01-NOV-1999 (TrEMBLrel. 12)
01-JUN-2002 (TrEMBLrel. 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Integrin alpha L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Simi
nes 399;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                       842
                                                                                                                                                                                                                                                                                                                                                    1020
                                                                                                                                                                                                                                                                                                                                                                                    1030
                                                                                                                                                                                                                                                                                                                                                                                                                     1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1090
                                                      737
                                                                                      782
                                                                                                                                                                                                                    902
                                                                                                                                                                                                                                                      913
                                                                                                                                                                                                                                                                                       196
                                                                                                                                                                                                                                                                                                                    973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q9WTV4
Q9WTV4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query
```

g ò

ð

527 541 875 882 934 942 986

827

us-09-902-481b-5.rspt

셤

```
343 QVQHVYQV----RIQPSAYDHNMPT-LEALVGVPRPHSEDLITYTWSVQTDPLVTCHSE 996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     883 WEDFVELNGTVHCENENSSLQEDNSAATHIPVLYPVNILTKEQENSTLYISFTPKGPKTQ
                                                                                                                                      935 VMQHQYQVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQ----VTFSENLSS----TCHTK
                                PQ--FQGRLLANLSYTLQLDGHRMRSRGLFPDGSHELSGNTSITP-DKSCLDFHFHFPIC
                                                                                                                                                                                                                                                                                                                                                                                                                           IEDPVSPIVLRINFSLV---GTPLSAFGN-LRPVLAEDAQRLFTALFPFEKNCGNDNICQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               DDLSITFSFMSLDCLVVGGP-----REFNVTVRNDGEDSYRTQVTFFFPLDLSYRKV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |---PHSRMPVSCEEL--TEGSSLLTKTLKCNVSSPIFKAGQEVSLQVMFNTLLNSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       876 LGNKLLLKANVTSEN-NMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               E-RLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DLKRPS-----SEAEPCLPGV--QFRCPIVF---RWEILIQVTGTVELSKEIKAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1046 HNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLL
  EQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGA
                                                                                                          PGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLT
                                                                                                                                                                                                                VGAQCHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAG-EVRVCLHVQKST
                                                                                                                                                                                                                                                                                                                      647 RDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            817 STLONGRSQRSWRLACESASSTEVSGAL-KSTSCSINHPIFPENSEVTFNITFDVDSKAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cyprinus carpio (Common carp).

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Actinopterygii; Neopeerygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Cyprinus.
NCBI_TaxID=7962;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     [1] — SEQUENCE FROM N.A. TISSUE—PERITONNEL CELLS; Kimura M., Nakao M., Miura C., Fujiki K., Yano T.; Kimura M., Nakao M., Miura C., Fujiki K., Yano T.; Wolecular cloning of a leukocyte integrin from the common carp."; EMBL; ABO48536; BAB39134.1; -- HSSP; P20701; 1LFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1106 ALITAALYKLGFFKRQYKDMM-SEGGPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT; 1196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR001969; Aspprotease site.
InterPro; IPR000413; Integrin_alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (TrEMBLrel. 17, C
(TrEMBLrel. 17, I
(TrEMBLrel. 23, I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-2003
CD11-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JUN-2001
01-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   166
                                                                                                                                                            542
                                                                                                                                                                                                                588
                                                                                                                                                                                                                                                                                                                                                                                                                              707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               987
                                                                                                          528
                                                                                                                                                                                                                                                                                                                                                                          629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q98TF1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q98TF1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ጵ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                    용
                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60 IRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQ 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120 KPPEALRGCPQEDSDIARLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEE 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               199 CRIEFIFLDYVKONKNPDVLLGSVOPMFLLINTFRAINYVVAHVFKEESGARPDAIKVLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  305 VEEFVKILDTFEKLKDLFTDLQRRIYAIEGTNRQDLTSFNMELSSSGISADLSKGHAVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 FNLDTENAMTFQENA-RGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24 YNLDTRPTQSFLAQAGRHFGYQVLQIEDG-VVVGAPGE---GDNTGGLYHCRTSSEFCQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      : | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180 FRIHFTFKEF-QNNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LITDGEKFGDPLGYEDVIPEADREG------VIRYVIGVGDAFRSEKSRQELNTVASKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               292 PRDHVFQINNFEALKTIQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TVGSYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-ILLRNRVQSLVLGAPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YQHIGLVAMFR--QNTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                              Eukāryota; Metazoa; Chordāta; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1160;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS50234; VWPA; 1.
SEQUENCE 1160 AA; 128127 WW; A33C531B139F1FAD CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
STRAIN=C5/BL/6J; TISSUE=Spleen;
MA R.2., Teuscher C.;
Submitted (MAY-1998) to the EMBL/GenBank/DDBJ databases.
EMBL; AF065901; AAD25884.1;
                                                                                                                                                                                                                Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1524; DB 11;
Pred. No. 5.8e-104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              216; Mismatches 459;
1100 LFLIFLALYKVGFFKRNLKEKMEADGGVPNGSP 1132
                                                                                                                                                                                          Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MGD; MGI:96606; Itgal.
InterPro; IPR000413; Integrin_alpha
InterPro; IPR002035; VWF A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro; IPR002035; VWF A. Pfam; PF01839; FG-GAP; S. Pfam; PF00357; integrin A; 1. Pfam; PF00092; vwa; 1. PRINTS; PR01185; INTEGRINA SMART; SM00191; Int_alpha; S. SMART; SM00327; VWA; 1.
                                                                                                                                                                                  01-MAY 2000 (TrEMBLrel. 13, 01-MAY-2000 (TrEMBLrel. 13, 01-JUN-2002 (TrEMBLrel. 21, Integrin alpha L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25.9%
33.9%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity 33.998 tes 397; Conservative
                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                      Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       P20701; 1LFA.
                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ouery Match
                                                                                                                                Q9R200
                                                                                                                                                                                                                                                                                             TGAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Loca
Matches
                                                                               RESULT
```

a ò Ωp ò g

ò

g

ò

g

õ g ò 유 ò

ò

ઠે 셤 ò g ò 9 ò 유 8 a ે

```
964 QTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQ-----C 1017
                                                                                                                                                                                                                                                                                                                                                                                                         DIPFFGIQEE--FNATLKGNLSFDWYIKTSHNHLLIVSTABILFNDSVFTLLPGQGAFVR 1075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               59 PIRLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQP 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OKFPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSE 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      179 EFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKVAFKILI 238
                                                                                                                                                                                                                      26 YNLDVRGARSFSPPRAGRHFGYRVLQV-GNGVIVGAPGE---GNSTGSLYQCQSGTGHCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ----ILFAAVQFST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 FNLDTENAMTFQ--ENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PVTLR-GSNYTSKYLGMTLA--TDP-------
                                                                                                                                                                                                                                                                                                                                                                                                                                           | : :: | : : | : | : | 1056 KYSFYEFRKDNVFSISAELNYNTSLYNQTS------RELKYNPH-----R
                                                                                                                                                                                                                                                                                                                                  KHLLFFSPELSAVQQVRSTGWSLREVEC-SQF--DLNKSSAVHFNLTADARLQNVKEYES
LGNKLLLKANVTSENNMPRTNKTEFOLELPVKYAVYMVVTSHGV-STKYLNFTASENTSR
                                                                                                                      935 VMQHQYQVSNLGQRSLPISLVFLVPVR------LN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1076 SQTETKVEPFEVPNPLPLIV-GSSVGGLLLALITAALYKLGFFKRQYKD 1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels 175;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1086;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hypothetical protein.
SEQUENCE 1086 AA; 119223 MW; F6FF2546E8C632F9 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Strausberg R.; Strausberg R.; Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases. EMBL, BC009777, AAH009777.1; Integrin_alpha. InterPro; IPR000413; Integrin_alpha. InterPro; IPR002035; VWF_A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23.1%; Score 1359.5; DB 4;
larity 32.3%; Pred. No. 9e-92;
Conservative 185; Mismatches 431;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -:
-:
-:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; PS00242; INTEGRIN ALPHA; PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pfam; PF00092; vwa; 1. –
PRINTS; PR01185; INTEGRINA.
SMART; SM00191; Int_alpha; 5.
SMART; SM00327; VWA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pfam; PF01839; FG-GAP; 3.
Pfam; PF00357; integrin A; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q96HB1;
01-DEC-2001 (TrEMBLrel. 19,
01-DEC-2001 (TrEMBLrel. 19,
01-MAR-2003 (TrEMBLrel. 23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hypothetical protein
Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 378; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
TISSUE=Lymph;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 10
096HB1
1D 096HB1
AC 096HB
AC 096HB
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 01-DE
DT 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                            셤
                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                   중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          : | :: | :: | :: | :| TERTESS---TGSLEKKLNVSLNLNVDVVRGMSRGFFDQSSVSSRTLQQSVLLDSGSSCFN 713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     39,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            759 NICODDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVST 818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KAQKALVIITD----GDPSDNDDYNVLKKCDEQNILRYIIGVG-----KVDLIELTQLAS 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPL 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE 468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        113 NLRQQPQKFPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFS 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   200 AVQESTDVRTVFDFNDYQSGSAEEKLMKE-THMKSLTNTHKAIDYILKNLLNSMLSGADS 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      232 NAFKILILITUGEKFGDPLGYED--VIPEADREGVIRYVIGVGDAFRSEKSRQELNTVAS 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                310 EPKRNNTFYIKDYSGLKGLLDNLQKKIYNIEGSVDAQGRDRQKELSQSGFSVVYQEESVI 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMN-DAYLGYAAAIILRNRVQSLVLGAP 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          173 LMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGIRKVVRELFN-ITNGARK 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SQ------PRTEGRL,VVYSLSEQXYFQKTLNVSQSTTGRFAASVASLKDLNGDGLSDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NSCVADLKLNFSFTN-NTLVVENOAHFTVQVSLANPGDDSYNTSIVLHYPEGISLSKFDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LQNQRSQRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDV---DSKAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OTRGGOVSVCPLPRGORARWQCDAVLYGEQ-----GOPWGRFGAALTVLGDVNGDKLTDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AIGAPGEEDNRGAVYLFHGTSGSGISPSHS-QRIAGSKLSPRLQYFGQSLSGGQDLTMDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    643 OKSTRDRIREGOIOSV--VTYDLALDSGRPHSRAVFNETKNSTR--RQTQVLGLTQTCET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CEPIRLQVP----VEAVMMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGS
                                                                                                                                                                                                                                                                                                                                                                                                                                             1 FNLDTENAMIFQENARG FGQSVVQLQ-GSR--VVVGAPQEIVAANQRGSLYQCDYSTGS
                                                                                                                                                                                                                                                                                                                                        Length 1196;
                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                               1196 AA; 132477 MW; 9369C807E7DCA53B CRC64;
                                                                                                                                                                                                                                                                                                                                  Query Match
24.0%; Score 1409; DB 13;
Best Local Similarity 31.5%; Pred. No. 2.2e-95;
Matches 375; Conservative 224; Mismatches 447;
                                                                                                           PRINTS; PR01185; INTEGRINA.
PRINTS; PR00453; VWFADOMAIN.
SWART; SM00191; Int_alpha; 5.
SWART; SM00327; VWA; 1.
PROSITE; PS00141; ASP PROTEASE; 1.
PROSITE; PS50234; VWFF, 1.
SEQUENCE 1196 AA; 13247; MW; 936
        InterPro; IPR002035; VWF.A.
Pfam; PP01839; FG-GAP; 5.
Pfam; PF00357; integrin.A; 1.
Pfam; PF00092; vwa; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ठे
```

유

g

8 용 ò

ò

g

g

ò

ò

8 8

a ò 원 ò 9

37;

58 8

```
SL-QAVSNFTAAYQECSKREVNLVFLFDGSSSMKAVEFDMNKNFIKDVMKKLSNSSIKFA 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPL 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGIRKVVRELFN-ITNGARK 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          113 NLRQQPQKFPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YE-QTRG-GQVSVCPLPRGQRARWQCDAVLYGEQ--GQPWGRFGAALTVLGDVNGDKLTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                32 FNIDTEHPLRFNGTPEDFFGYSVYQTEFGNRKQIIVGAPLE---GNSAGEMYSCTADLQS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CEPIRLOVP----VEAVNMSLGLSLAATISPPQLLACGPTVHQTCSENTYVKGLCFLFGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAPKILILITUGEKFGDPLGYED - - VIPEADREGVIRYVIGVGDAFRSEKSRQELNTVAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LSTVGSYDWAGGVFLYT---SKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VAIGAPGEEDNRGAVYLFHGTSGSGISPSHS-ORIAGSKLSPRLOYFGQSLSGGODLTMD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FNLDTENAMTFQENARG-FGQSVVQLQ-GSR--VVVGAPQEIVAANQRGSLYQCDYSTGS
                                                                                                                                                                                                                                                                                                                                                                                                                               157; Gaps
                                       Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Cyprinus.
                                                                                                                          TISSUE-PERICORNEL exudate cells;

Kimura M., Fujiki K., Nakao M.;

Kimura M., Fujiki K., Nakao M.;

"Molecular cloning of a leukocyte integrin from the common carp.";

Submitted (SEP-2000) to the EMBL/GenBank/DDBJ databases.

BMBL, AB048537; BAB39135-1;

HSSP; P20701; 1LFA.

InterPro; IPR001935; Aspprotease site.

InterPro; IPR002035; UMF A.

Pfam; PF01899; FG-GAP; 5.

Pfam; PF01895; integrin_A; 1.
                                                                                                                                                                                                                                                                                                                                                                                                    Length 1187;
                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
23.1%; Score 1358.5; DB 13; Lengt;
Best Local Similarity 31.6%; Pred. No. 1.2e-91;
Matches 377; Conservative 206; Mismatches 452; Indels
                                                                                                                                                                                                                                                                                                                                                                          85EDC7CA8B6B1C59 CRC64;
01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                PROTEASE; 1.
                                                                                                                                                                                                                                                                                                                                                                         1187 AA; 131778 MW;
                                                                                                                                                                                                                                                                                       PRINTS; PRO1185; INTEGRINA.
PRINTS; PR00453; VWFADOMAIN.
SMART; SM00191; Int alpha; 5.
SMART; SM00327; VWA; 1.
                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00141; ASP PR
PROSITE; PS50234; VWFĀ;
SEQUENCE 1187 AA; 131
                                                                                                                                                                                                                                                                            Pfam; PF00092; vwa; 1.
                                                                                                                  SEQUENCE FROM N.A.
                                      Cyprinus
                                                                                                                                                                                                                                                                                                                                                                                                                                                       -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            427
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           991 SHSD--FLAELRKAPVVNÇSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNH 1048
                                                                                                                                                   AGGFLDLKADLQDDTFIGNEPLTPEVRAGYLGYTVTWLPSRQKTSLLASGAPRYQHMGRV 350
                                                                                                                                                                                                  592
                                                                                                                                                                                                                                                                                                                                                                          580
                                                                                                                                                                                                                                                                                                                                                                                                    711
                                                                                                                                                                                                                                                                                                                                                                                                                    762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            865
                                          474
                                                                                                                                                                                                                                       532
                                                                                                                                                                                                                                                                464
                                                                                                                                                                                                                                                                                                                    522
                                                                                                                                                                                                                                                                                                                                                651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                866 KHMYQVRIQPSIHDHNIPTLEAVVGVPQPPSEGPITHQWSVQMEPPV--PCHYEDLERLP 923
                                                                                                                                AGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQHIGLV 416
SYKTEFDFSDYVKRKDPDALLKHVKHMLLLTNTFGAINYVATEVFREELGARPDATKVLI 177
                        LITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSROELNTVASKPPRDHVFQ
                                                                                                                                                                                    417 AMFR - - ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQ
                                                                                                                                                                                                                                      VSVCPLPRGQRARWQCDAV--LYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEED
                                                                                                                                                                                                                                                                                          NRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RSQRSWRLACES--ASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KPHSQIPVSCEELPEESRILSRAL---SCNVSSPIFKAGHSVALQMMFNTLVNSSWGDSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LLKANVTSENN----MPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QHQYQV---SNLGQRSLP+ISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTK--ERLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ------FRQEILVQVIGTLELVGEIEAS-SM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1049 LLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FSLCSSLSISFINSKHFHLYGSNASL-AQVVMKVDVVYEKQMLYLYUSGIGGLLLLLI
                                                                                                                                                                                                                                                                                                           HVLLLRSQPVLRVKAIMEPNPREVARNVFECNDQVV-KGKEAGEVRVCLHVQKSTRDRLR
                                                                                                                                                                                                                                                                                                                                                                                                    EGQ1QSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNC1EDPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                         SPIVLRINFSL---VGTPLSAFGN-----LRPVLAEDAQRLFTALFPFEKNCGNDNICQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SPINVSLNFSLWEEEGTPRDQRAGKDIPPILRPSLHSETWEI-----PFEKNCGEDKKCE
                                                                                                                                                                                                                                                    INNFEALKTIONOLREKIFALEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDW
                                                                                                                                                                                                                                                                                                                                                               Created)
Last sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FIVLYKVGFFKRNLKEKMEAGRGVPNGIP 1052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT; 1187 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1109 TAALYKLGFFKROYKDMMSEG-GPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (TrEMBLrel. 17, (TrEMBLrel. 17,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DAAEPCLPGALFRCPW-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         098TF0;
01-JUN-2001 (
01-JUN-2001 (
                                                                             299
                                                                                                                                                          291
                                                                                                                                                                                                                                      475
                                                                                                                                                                                                                                                                                            533
                                                                                                                                                                                                                                                                                                                                                593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1024
                                                                                                                                                                                                                                                                 411
                                                                                                                                                                                                                                                                                                                                                                                                    652
                                                                                                                                                                                                                                                                                                                                                                                                                               581
                                                                                                                                                                                                                                                                                                                                                                                                                                                       712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  881
                                                                                                                                359
                                                                                                                                                                                                                                                                                                                                                                          523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q98TF0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 11
Q98TF0
                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                            엄
                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                   8 8
                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           음
상
음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                g
                                                                                                셤
                                                                                                                            ò
                                                                                                                                                    셤
                                                                                                                                                                                 ò
                                                                                                                                                                                                     a
                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
```

43;

98 88 112 140 172 369 406

258 289 486 522

581 593

411

469 296 529 353 589

```
176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGL
                                                                                                                                                                                                      297 QRGGRVFIY---QKIQLEFQMVSELQGETGYPLGRFGAAIAALTDINGDELTDVAVGAPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QDDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   822 ORSORSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HHVKHIYQVRIQPSNYDNMP-PLEALVRVPRVHSEGLITHKWSIQMEPPVNCSPRNLESP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYI
                         HIGLVAMFRO--NTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQ
                                                                                                                                                                                                                                                                                                                                                    470 TRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                          EEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IEDPVSPIVLRINFSL - - - VGTPLS - - AFGNLRPVLAEDAQRLFTALFPFEKNCGNDNIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LKANVTS-----ENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  934 RVMQHQYQV----SNLGQRSLPISLVFLVPVRLNQTVI---WD---RPQVTFS-ENLSST
                                                                                                                  AQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAG-EVRVCLHVQK--ST
FKILILITUGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPR
                                                                                    DHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTV
                                                                                                                                                                           GSYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LLLALITAALYKLGFFKR 1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08,
08,
23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (TrEMBLrel. C
(TrEMBLrel. C
(TrEMBLrel. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 13
088340
1D 088340;
AC 088340;
DT 01-NOV-1998 (
DT 01-NOV-1998 (
DT 01-NOV-1998 (
DT 01-NOV-1998 (
DT 01-NOV-1998 (
DT 01-NOV-1998 (
DT 01-NOV-1998 (
DT 01-NOV-1998 (
DT 01-NOV-1998 (
DT 01-NOV-1998 (
DT 01-NOV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1103
                                                                                                                                                                                                                                                                                                                                                                                                                                             530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       983
                                                                                        294
                                                                                                                                                                           354
                                                                                                                                                                                                                                                                 412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 B S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                    셤
                                                                                        કે
                                                                                                                      셤
                                                                                                                                                                           ઠે
                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EVHHSFISSYHQ--IIMCLLNKHLFFSPELSAVQTRTTGRSLWVC-----VSSISTGEI 1026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          990 PSHSDFLAELRKAPVVNC--------S1AVCQRIQCDIPFFGIQEE 1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ----SFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPG-QGA 1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    233
                                                                                                                                                                                                                                                                                                             819
                                                                                                                                                                                                                                                                                                                                                          870
                                                                                                                                                                                                                                                                                                                                                                                                      871
                                                                                                                                                                                                                                                                                                                                                                                                                                               929
                                                                                           697
                                                                                                                                    708
                                                                                                                                                                                                                           761
                                                                                                                                                                                                                                                                      813
                                                                                                                                                                               753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             63
      641
                                                  651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOYSEEFRIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNA
                                                                                                                      RKVSTLONORSORSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDV---
                                                                                                                                                                                                                                                                                                                                                                                                                                                 DSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVTSHGV-STKYLNFTAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | | :::|| | : || | | DYDWSDRMEMIITANSDNNGNM---SDMSVRRSIPVQFAVELAISLVAEDSVTYLNFSLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        930 ENTSRVMQHQYQVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FRSSV--NLMAEAVLONVKEYESKYSFY-FFRRDHVFNIS-AELNFNTSRYNQSTGLKYN
      GLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DRGPKPLNIIYKVVNLGLKGLPVSVTLSLPCQ------TTHVTLTPHNFSMQ
                                    VOKSTRDRLREGOIQSV--VTYDLALDSGRPHSRAVFNETKNSTR--RQTQVLGLTQTCE
                                                                                                                                                                                                                                                                    NCGNDNICQDDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSY
                                                                                                                                                                                                                                                                                                                                                                                                      SKFDAIKPSRTR------SSCGDRDSGAINRITCSINLPVYRSGITIOFLGIFRVTKW
                                                                                                                                                                               TLKLOLPNCIEDPVSPIVLRLNFS----LVGTPLSAFGNLRPVLAEDAQRLFTALFPFEK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
Lymphocyte function-associated antigen 1 (Fragment).
Bus taurus (Bovina, Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea; NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1073 FVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD 1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              86;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Thumbikat P., Kannan M.S., Maheswaran S.K.;
Thumbikat P., Kannan M.S., Maheswaran S.K.;
"Sequence of the alpha subunit of bovine lymphocyte function-
associated antigen I.;
submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AF440779; AAN63636.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 927;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
21.74; Score 1278; DB 6; Length 92
Best Lodal Similarity 34.94; Pred. No. 7.9e-86;
Matches 341; Conservative 166; Mismatches 385; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      927 AA; 102523 MW; 02E2CF09917081EC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1028 FNATLKGNL-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        174
                                                                                             642
                                                                                                                                        652
                                                                                                                                                                                                                                                                        754
                                                                                                                                                                                                                                                                                                                                                                                                                                                 871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NON TER
NON TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 12
08HZV0
AC 08HZV0
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT 01-MA
DT
```

643

881

701

470 706 525 761 585 821

410 646

g

셤 ò a ò a ò

셤 õ

ò

В

ò

q ò qq ò g ò 8

ठे

1102

908

ઠે g

760 750 809 810 868 870

=

```
SPSDHKEFFFNVHGENLFGAVFQLQICVPIKLQDF-----QIVRVKNLTKTQDHTECTQ 1025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SQEPACGSDPVQHVKEWHSVVCAI -----TSNKENVTVAABISVG 1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | |: : | | | | | |: | : | HIVQLLRDVSELPILGEISFNKSLYEGLNAB-----NHRTKITVIFLKEEETRSLPLII 1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HNHLLIVSTA-----EILFNDSVFTLLPGQCAFVRSQTETKVEPF----EVPNPLPLIV 1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VYIYNGHSG-GLYDSPSQQIRASSVASGLHYFGMSVSGGLDFNGDGLADITVGSRDSAVV
                                                                                                                                                                                                                                                                                                                                               161 STEEL----CEEDCFSNITIKVTYE-----PQTSGGRRDYPNPTL--DHYKEPSAIFQLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                          LQFKKI-----QKPVSPDVQCDDPKPV---ASVLVMNCKIGHDIL-KRSSVNVSVTWQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTS
                                                                                LRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKS - - - TRDRLREG
                                                                                                                   ETLKLÖLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLR----PVLAEDAQRLFTALF--P
                                                                                                                                                                                                                                                                                                                                                                                                                    FEKNCGNDNI CQDDLSI TPSFMSLDCL VVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LSYRKVSTLONORSORSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NTSRVMQHQYQVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSST----CHT
                                                                                                                                                                                              QIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTC-------
                                                                                                                                                                                                                                                  FLNFTVDVDV------TKQRQRLQCEDSSGCQSCLRKWNGGSFLCEHFWL1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.

MEDILINE=98056820; PubMed=9394838;

MEDILINE=98056820; PubMed=0.1.G.;

"Sequence analysis of rat integrin alpha El and alpha E2 subunits:

"Sequence analysis of rat integrin alpha El and alpha E2 subunits:

tissue expression reveals phenotypic similarities between

tinsue expression reveals phenotypic similarities between

tinsue expression 27:3070-3079 [1997].

EMBL: J. Immunol. 27:3070-3079 [1997].

EMBL: AF020046; AAC23663.1; --

EMBL: AF020046; Integrin_alpha.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT; 1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Integrin alpha E2 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pfam; PF01839; FG-GAP; 4.
Pfam; PF00357; integrin_A; 1.
Pfam; PF000192; vwa; 1.
PRINTS; PR01181; INTEGRINA.
PRINTS; PR0453; VWFADOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1998 (TrEMBLrel. 08, 01-NOV-1998 (TrEMBLrel. 08, 01-MAR-2003 (TrEMBLrel. 23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rattus norvegicus (Rat)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1120
                                                                                597
                                                                                                                                                                                              654
                                                                                                                                                                                                                                                  716
                                                                                                                                                                                                                                                                                                                                                                                                                    751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  972
                            607
                                                                                                                                       999
                                                                                                                                                                                                                                                                                                      697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
088341
                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DE PER PRESENTATION OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PRO
                                                                        ઠ
                                                                                                                               g
                                                                                                                                                                                        δ
                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                    ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQINNFEALKTIQ 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               310 NQLREKIFAIEGTQTGS$SSFEHEMSQEGFSAAITSNGP-LLSTVGSYDWAGGVFLY-TS 367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          368 KEKSTFINMT-RVDS-DMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGM 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               537 VYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLL 596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              53 STGSCEPIRLQVPVEAVMMSLGLSLAATT--SPPQLLAC-GPTVHQTCSENTYVKGLCFL 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    483 GQRARWQCDAVLYGEQQQPWGRFGAALTVLGDVNGDKLTDVAIGAP-----GEEDNRGA 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20 FINMDVDWAWVTALOPGAPAVLSSLIHLDPSN-----NQTCLLVARRSSNRNTAALYRCAI 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 FNLDTENA--MTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGS-----LYQCDY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               133 LTPNLDLÓAQAYFSDLEGFLDPGAHVDSGDYCRSKGGSTGEEKKSARRRTVEEEDEEED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQL--KKSKTLFSLMQYSEEFRIHFTFKEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ONNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILILITDGEKFGDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WESNA - - - NVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -QDASFSLAHTLSGHPGLTNSRFGFAMAAVGDINQDKFTDVAIGAPLEGFGAGDGASYGS
                       Rattús norvegicus (Rat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentía; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 11; Length 1167;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            205;
                                                                                                                                                                                      MEDLINE=98056820; PubMed=9394838;
Brenan M., Rees D.J.G.;
"Sequence analysis of rat integrin alpha El and alpha E2 sul tissue expression reveals phenotypic similarities between intraepithelaal lymphocytes and dendritic cells in lympho.";
Eur. J. Immunol. 27:3070-3079(1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1167.5; DB 11; Lengt
Pred. No. 2e-77;
214; Mismatches 456; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MW; D88A2C38ACDC2AAE CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRINTS; PRO0185; INTECRINA.
PRINTS; PR00453; VWFADOMAIN.
SMART; SM00191; INt. alpha; 4.
SMART; SM00327; VWA; 1.
PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS750244; VWFF; 1.
SEQUENCE 1167 AA; 128970 MW; D88A2
                                                                                                                                                                                                                                                                                                                             Eur. J. Immunol. 27:3070-3079(1997).
EMBL, AR020045; AAC23662.1;
HSSP, Pll215; 1BHQ.
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002035; VWF_A.
Ffam; PF01839; FG-GAP; 4.
Pfam; PF000527; integrin_A; 1.
Pfam; PF00092; Vwa; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19.9%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FGSNLRQQPQKFPEALRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity 29.09
les 358; Conservative
                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                        NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Si
Matches 358,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    190
```

ò g ò 요 ò q g ò 음 장

ò

g 8 g õ g ò qq ò QΩ ò

918

930

```
960 VRLNQTVIWDRPQVTFSENLSST-CHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCD 1018
                                                                                                                                                                                                                   1019 IPFFGIQEEFNATL-----KGNLSFDWYIKTSHNHLLI--VSTAEIL----FNDSVFTL 1066
                                                                                                                                                                                                                                                                                                      SPCIKLNLPDATSVPNVMEVKENMTLGTTL-VTNPKGGFLACGPLYAYKCGRLHYTTGVC 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             58 EP-IRLQVP-----VEAV--NMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLC 107
--ASVLVMNCKIGHPIL-KRSSVNVSVTWQLEESIFPNRTADITVTISNSNEKSLARETH 947
                                                                                                                                                          2 NLDTENAMIFQENARG-FGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQCDYSTGSC
                                           FOLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                            -----EWHSVICAITSNKENVTVAAEISMGHTKQLLRDISELQILGEISFNKSLYEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryoča, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                         ---SLQFRHAFIAVLSR--PSVMYMN--TSQSSSDHKEFFFNVHGENHFGAVFQLQICVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Smooth muscle cell phenotype-dependent transcriptional regulation the alphal integrin gene.";
the alphal integrin gene.";
J. Biol. Chem. 272:26643-26651(1997).
EMBL; AB000470; BAA23160.1;
EMBL; AB0000471; BAA23161.1;
HSSP; P17301; 1AOX.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=Gizzard;
MEDLINE=97476270; PubMed=9334246;
Obata H., Hayashi K., Nishida W., Momiyama T., Uchida A., Ochi T.,
Sobue K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels 144;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1171;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1171 AA; 130228 MW; BS05A4D65F09736E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 17.9%; Score 1053; DB 13; Best Local Similarity 28.0%; Pred. No. 6.5e-69; Matches 339; Conservative 216; Mismatches 513;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1171 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002035; VWP_A.
Pfam; PF01839; FG-GAP; 5.
Pfam; PF00357; Integrin_A; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF00092; vwa; 1.
PRINTS; PR01185; INTEGRINA.
PRINTS; PR00453; VWFADOMAIN.
SMART; SM00191; Int alpha; 4.
SMART; SM00327; VWA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05,
05,
23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-JAN-1998 (TrEMBLrel. 0
01-JAN-1998 (TrEMBLrel. 0
01-MAR-2003 (TrEMBLrel. 2
ALPHA1 integrin.
Gallus gallus (Chicken).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                             1123 KDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                         1147 KQLNLE 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                               1040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            042094;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       042094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gallus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 15
042094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                         8
                                                                           g
                                                                                                                            ઠે
                                                                                                                                                                셤
                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                          ሯ
                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                 37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    450
                                                                                                                                                                                                                                                                                                                                                                        158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALT 510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ::| | | : |: | | | : |: | | | : | | : | | | : | | | | | : | | | | | : | : | | | | : | : | | | | : | : | | | : | : | | | : | : | | | : | : | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         686 ----AAFKDKMDVELCFKVDSSAVPSEPGLRGMSLNFTVDVDV------TKQ 727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         722 LVGTPLSAFGNLRPVLAEDAQRLFTALF--PFEKNCGNDNICQDDLSITFSFMSLDCLVV 779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780 GGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTE 839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    840 VSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTE 899
                                                                                                                                                                                                                                                                                                                               127
                                                                                                                                                                                                                                                                                                                                                                                                                      157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        276 RSEKSRQELNTVASKPPRDHVFQINNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMS 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -----GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPR 564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -----TQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFS 721
                                                                                                                                                                                                                                                                                      98
                                                                                                                                                                                                                                            94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              728 KQRLQCADRSCCQSCLMKWSGGSSLCEHFGLISTEEEL-----CEDDCFSNITIKVSYE
                                                                                                                                                                                                                                                                                                                                                           99 LVRNHNGVLVCIQVQSRKPRSLNSELTGACSLLTPNLDLQAQAYFSDLEGVLDLGASVNS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            : |: :| : |: || || |::::|||: || || QHVLDNIFIPSSSKMQGVVRFAIGVGNAF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   : | : : | | | | | | | | : | | : | | SVAALHKAHGVSYVAGAPRHKLRGAVFELQKEDGEETFMRRIEGEGMGSYFGSVLCPVDI
                                                                                                                                                                                                                                                                                                                                 QTCSENTYVKGLCFLFGSNLRQQPQKFPEALRG------
                                                                                                                                                                                                                                                                                                                                                                                                                                             STVMEQL--KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QEGESAAITSNGP-LLSTVGSYDWAGGVFLY-TSKEKSTFINMTRVDSDMNDA---YLGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOVVKGKEAGEVRVCLHVOKS - - - TRDRLREGOIOSVVTYDLALDSGRPHSRAVFNETKN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   F-QTSEERRNHPNPIL--DHYKEPSAIFQLPYEKDCKNKVFCIAEIQLTTAISQQD-LVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                   ------ATSIIPDEIGCOPVEHILMPKGRYQGVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RKVVRELFNI TNGARKNAFKILILITDGEKFGDPLGYEDVI PEADREGVIRYVIGVGDAF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----CPQED----SDIAFLVDGSGSIIPHDFRRAKEFI
                                                                                                                                                                                              Indels 244;
                                                                                                                                                       Length 1167;
                                                                                                                                                                                                                                          LYQCDYSTGSCEPIRLQVPVBAVNMSLGLSLAATTSPPQLLACGPTVH
                                                                                                            E3FED7E18B5CBBEC CRC64;
                                                                                                                                                   k) Score 1123; DB 11;
k) Pred. No. 4e-74;
207; Mismatches 421;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ::
SMART; SM00191; Int_alpha; 4.
SMART; SM00327; VWA; 1.
PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
1 SEQÜENCE 1167 AA; 128593 MW; E3FI
                                                                                                                                                Ouery Match
Best Local Similarity 27.74;
Matches 334; Conservative 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 511 VLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  682 STRRQ-----
                                                                                                                                                                                                                                                                                                                                 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
    S FT S
                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

ō

46;

Gaps

\*

FLFGSNLRQQPQKFPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLK 165	KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLIKPITGLLG-RTHTATGIRKVVRELFN 224	RSEK :   RGNLSTEK	SROELNTVASKPPRDHV POINNFBALKTIONOLREKIFAIEGTOTGSSSSFEHEMSOEGF 339	SAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAI 394    : :           : :         SAHYSQDWVMLGAVGAYDWNGTVVWVKDSDISIPSNDTFRDRHSEKIEPLAAYLGYTVNS 432	ILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNG 454	STDLVLIGAPHYYEQ <sup>T</sup> RGGQVSVCPLPRGQRARWQCDAVLYGEQG 499	QPWG-RFGAALIVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAG 558	SKLSPRLQYFGQSLSGGØDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVAR 618 ::::    :         : :	NVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALDSGRPHSRAVF 676  :    :	NETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFG 731	NLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGGPREFN 786PVLDSNLPNSISEYIPFTKDCGAKNKCISDLALNVKASIAGDSSSPFIVKSRNDRFT 831	VTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGALKS 846 : :::  :     :   :   :   :	TSCSINHPIFPENSEVTÉNITFDVDSKASLGUKLLLKANVTSENNMPRTNKTEFQL 902 	ELPVKYAVYMVTS	SLVFLVPVRLNGTVIMDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAP 1003	VVNCSIAVCQRIQCDIPPEGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEIL 1058	FNDSVFTLLPGGGAFVRSGTETKVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLG 1116
*108 FLFGSNLRQQPQKPPEALRGCPQEDSDI 138 SNVSSTFETVKAVAP-SÝQEC-KTQLDI	166 KSKTLFSLMQYSEEFRIHFTFKEFQNNP		280 SRQELNTVASKPPRDHVEQINNFEALKT 	340 SAAITSNGPLLSTVGSYDWAGGVFLYTS 	395 ILRNRVQSLVLGAPRYQHIGLVAMFRQN 	455 STDLVLIGAPHYYEQTRGGQVSVCPLPRG 	500 QPWG-RFGAALTVLGDVNGDKLTDVAIG 	559 SKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREV 	619 NVFECNDQVVKGKEAGEVRVCLHVQK	677 NETKNSTRRQTQVLGLTÅTCETLK 	732 NLRPVLAEDAQRLFTALFPFEKNCGNDN 	787 UTVTVRNDGEDSYRTQVTFFFFPLDLSYRKVSTLONGR : :::   : : : : : : : : : : : : : : :	847 ISCSINHPIFPENSEVTENITFDVDSKA 	903 ELPVKYAVYMVVTSHGVSTKYLN 	953 SLVFLVPVRLNQTVIWDRPQVTFSEN     :	1004VVNCSIAVCQRIQCDIPFFGIQEEFN	1059 FNDSVFTLLPGQGAFVRSQTETKVEPFE :
è 6	\$ B	දු පු	දු පු	& g	දු දු	<b>상</b> 원	<b>상</b> 원	දු පු	& g	දු පු	ç q	ço ga	6 G	ۇ <sub>6</sub>	y d	\$ 8	Oy Op

Search completed: November 25, 2003, 14:20:35 Job time : 37.1068 secs

.

Total number of

Searched:

Minimum DB Maximum DB

Database

Perfect score:

Sequence:

ı

OM protein

Run on:

Scoring table:

```
Human beta-2 integ
Human alpha-d. Ho
Human alpha-d. Ho
Human alphad prote
Human alphad prote
Human beta-2 integr
Human beta-2 integr
Human beta-2 integr
Human beta-3 integri
Human alphad prote
Human alphad prote
Human alpha-d prote
Human alpha-d prote
Human alpha-d prote
Human alpha-d prote
Rat alpha-d prote
Rat alpha-d prote
Rat alpha-d protei
Rat alpha-d protei
Rat alpha-d protei
Rat alpha-d protei
Rat alpha-d protei
Rat alpha-d protei
Rat alpha-d protei
Rat alpha-d protei
Mouse beta-integrin
Mouse alpha-d protei
Mouse alpha-d protei
Mouse alpha-d protei
Mouse alpha-d protei
Mouse alpha-d protei
Mouse alpha-d brote
Mouse alpha-d subu
Rat beta-2 integri
Mouse alpha-d albu-d
Mouse alpha-d albu-d
Mouse alpha-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu-d albu
Beta2 integr
n differenti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Beta-integrin alpha-d subunit; human; modulator; treatment; psoriasis; type-I diabetes; atherosclerosis; multiple sclerosis; asthma; lung inflammation; acute respiratory distress syndrome; CD11b subunit; rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human Beta-integrin CD11b subunit protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                             AAW23061
AAW72836
AAW65103
AAW60003
AAW73347
AAW73347
AAR78168
AAR78168
AAW23059
                            AAR78166
AAW23049
AAW72825
AAW65089
AAW57491
AAW73342
                                                                                                                                                                                                                                                                                                               AAW60004
AAB07374
ABG61483
AAW65104
AAW73345
                                                                                                                                                                               AAW72837
AAW65106
                                                                                                                                                                                                               AAW73343
AAB07376
                                                                                                                                                                                                                                              ABG61485
AAR78169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAW65101
AAW60001
                                                                                                                                                                                                                                                                                                4AW72824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAW65090 standard; Protein; 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Van DER VIEREN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              95US-0485618.
93US-0173497.
94US-0286889.
94US-0362652.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               95US-0485618.
                                                                                                                                               (first entry)
 CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-JUN-1995;
23-DEC-1993;
05-AUG-1994;
21-DEC-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gallatin WM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (ICOS-) ICOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US5728533-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-MAR-1998
                                                                                                                                                                AAW65090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW65090
   Human CD11b protei
Human netaz integr
Human integrin la
Integrin Mac.1 alp
Alpha subunit of M
p150.95 alpha subu
Human Beta integri
Human CD11c protei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human Beta-integri
                                                                                                                  2003, 14:08:29 ; Search time 36.2978 Seconds (without alignments) 4971.979 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             results predicted by chance to have a to the score of the result being printed, of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A Geneseq 19Jun03:*

| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1980.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1985.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1985.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1989.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1989.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1989.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1989.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1991.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1991.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1991.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1991.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1991.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1991.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1999.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1999.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1999.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1999.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1999.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1999.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1999.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA1999.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA2001.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*
| SIDSI/gcgdata/geneseq/geneseqp-embl/AA2003.DAT:*
                                                                                                                                                                               US-09-902-481B-5
5876
1 FNLDTENAMTFQENARGFGQ.....FKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Description
                    GenCore version 5.1.6
(c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                1107863 segs, 158726573 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAW65090
AAB07360
ABG61469
AAU80252
AAC14428
AAR04136
AAR04136
AAR04136
                                                                                     protein search, using sw model
                                                                                                                                                                                                                                                               , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 £
                                                                                                                                                                                                                                                                                                                                                                                                                                   1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  No. is the number of a greater than or equal s derived by analysis o
                                                                                                                                                                                                                                                                                                                                                                seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                   *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28
                                                                                                                                                                                                                                                                                                                                                                                                                  Post-processing: Minimum Match
Maximum Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1153
1153
1153
1153
1153
1163
1163
                                                                                                                   November 25,
                                     Copyright
                                                                                                                                                                                                                                                  BLOSUM62
Gapop 10.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query
Match
```

5862 5862 5862 5862 5862 3460 3446

score g

Result Š.

Pred.

Tue

```
RLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                              FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                736
                                                 780
                                                                               196
                                                                                                               840
                                                                                                                                            856
                                                                                                                                                                                900
                                                                                                                                                                                                             916
                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                             976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human, macrophage infiltration inhibition; alpha_d integrin; leukocyte integrin; Leu-CAM; leukointegrin; immune response; infiammation; leukocyte adhesion deficiency; LAD; Type I diabetes; atherosclerosis; multiple sclerosis; asthma; psoriasis; beta2 integrin; lung infiammation; acute respiratory distress syndrome; Crohn's disease; rheumatoid arthritis; central nervous system injury; CD11b.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Integrins are a class of membrane-associated molecules that participate
                                                                                                                                                                                                                                                                                                                                                                                                                                              KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                               YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                  857 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                               SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFERNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                               GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                  GPREFNYTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                              SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                             QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       to inhibit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          use or novel anti-alpha integrin d monoclonal antibodies to
macrophage infiltration and reduce inflammation at central
system injury sites
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sxample 5; Fig 1; 270pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB07360 standard; Protein; 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CD11b protein sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Der Vieren
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0193043.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US27139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2000-387751/33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Van
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MO200029446-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (ICOS-) ICOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-NOV-1998;
08-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ballatin MW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAB07360;
                                                                                                                                                                                                                                                                             917
                                                                                                                                                                                                                                                                                                                                                                               1021
                                                    721
                                                                                                                   781
                                                                                                                                                797
                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                               961
                                                                                                                                                                                                                                                                                                                                                                                                                                                1081
                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                              윱
                                                                                                               ò
                                                                                                                                           셤
                                                                                                                                                                           ઠે
                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                   요 요
                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                               This sequence represents a human beta-integrin CD11b subunit which is used to describe a method for identifying compounds that modulate the interaction of the beta-integrin alpha-d subunit with a binding partner of alpha-d which involves contacting an alpha-d polypeptide with an alpha-d binding partner, one of which is immobilised and the other of which is labelled, in the presence of a test compound, and determining if the compound affects binding between the alpha-d polypeptide and alpha-d binding partner, where the alpha-d polypeptide is alpha-d or its fragment comprising the cytoplasmic, transmembrane or extracellular domain of alpha-d. Compounds that modulate alpha-d binding could be used to treat diseases such as type-I diabetes, atherosclerosis, multiple sclerosis, syndrome and rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  317 NFEALKTIONOLREKIFAIEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661 YDLALDSGRPHSRAVFNĖTKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGDDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HGTSGSGISPSHSQRIAĞSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NFEALKTIONOLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ONTGMMESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RIHFTFKEFQNNPNPRS$IKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                               Length 1153;
                                   Screening assay for modulators of integrin binding - using immobilised or labelled alpha-d polypeptide, useful for, e.g. treating type-I diabetes
                                                                                                                                                                                                                                                                                                                                                                                                                                  IndelB
                                                                                                                                                                                                                                                                                                                                                                                                                                  1;
                                                                                                                                                                                                                                                                                                                                                                                                DB 19;
                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. 0; 7; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                  Score 5862;
                                                                                                    English.
                                                                                                                                                                                                                                                                                                                                                                                               99.8%
nilarity 99.3%;
Conservative
                                                                                                     5; Fig 1A-D; 106pp;
                                                                                                                                                                                                                                                                                                                                                                  1153 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity
Matches 1129; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ч
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             437
                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                     Example
```

ద

6 6 6 6 6

ઠે

6 B 6

g &

8 8 6 8 6 8 6 8

```
(ICOS-) ICOS CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200230980-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gallatin WM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-APR-2002
                                                                                                                                                                                                                                                                                                             116
                                                                                                                                                                                                                                                                                                                                                                                    1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABG61469;
                                                                                           797
                                                                                                                                                                                                                                                                                                                                                 1021
                        737
                                                          781
                                                                                                                                 841
                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                           961
                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           injury
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Beta2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABG61469
ID ABG6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                             셤
                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                              ઠે
                                                                                                                             ઠે
                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
in cellular adhesion. Integins are made up of an alpha subunit and a beta subunit. One class of human integrins are restricted to expression in white blood cells and have a common beta2 subunit: the leukocyte integrins blood cells and have a common beta2 integrins. Beta2 integrins chave an important role in immune and inflammatory responses. The present protein sequence was used in an alignment to identify a novel beta2 integrin alpha subunit colls. This sequence has sequence was used in an alignment to identify a novel beta2 integrin alpha subunit: alpha (AAA60014 and AAB07359). The present sequence has approximately 60% identify to the protein sequence of alpha d. The Alpha gene and protein may be useful in therapy for diseases linked to aberrant alpha d function e.g. Type I diabetes, atherosclerosis, multiple sclerosis, asthma, psoriasis, lung inflammation, acute respiratory distress syndrome, rheumatoid arthritis and leukocyte adhesion deficiency (LAD). In addition, anti-alpha d monoclonal antibodies may be used in the inhibition of macrophage infiltration at the site of a central nervous system injury. The monoclonal antibodies can also be used to detect and diagnose Crohn's disease.
                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 780
                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                               FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEOLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RIHFTFKEFONNPNPRSLİKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKLVVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TDGEKFGDPLGYEDVI PEADREGVI RYVIGYGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TDGEKFGDPLGYEDVI PEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NFEALKTIONOLREKIFALEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                   Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                   Score 5862; DB 21;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                       1;
                                                                                                                                                                                                                                                                                                                                                                                                   7; Mismatches
                                                                                                                                                                                                                                                                                                                                                                 99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                     Matches 1129, Conservative
                                                                                                                                                                                                                                                                                                                                1153 AA;
                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           617
                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                   Query Match
     8 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ОD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>ک</u> و
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
```

```
1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1036
                                                               840
   196
                                                                                                                                  856
                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                    916
                                                                                                                                                                                                                                                                                                                                       960
                                                                                                                                                                                                                                                                                                                                                                                                          916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LAD; leukocyte adhesion deficiency; inflammatory response; diabetes; multiple scleroals; arthritis; graft atheroscleroais; neuroprocective; inflammatory bowel disease; Crohn's disease; ulcerative colitis; immune complex alveolitis; leukaemia; ICAM-R; VCAM-1; anti-inflammatory; infracellular call adhesion molecule; vascular call adhesion molecule; vascular call adhesion molecule; automotor recovery; locomotor damage; locomotor impairment; autonomic dysfunction; sensory dysfunction; spinal cord injury.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to promoting locomotor recovery, inhibiting locomotor damage, limiting locomotor impairment, or limiting autonomic and sensory dysfunction following spinal cord injury by administering s
                                                                                                                                                                                                                                                                                                                                                                                     FFGIQEEFNATLKGNLSFDWYIXTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                  GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                      GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                        857 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                       QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
                                                                                                                                                                                                     SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Use of an anti-alpha-d monoclonal antibodies for promoting locomotor recovery, inhibiting locomotor damage, limiting locomotor impairment or limiting autonomic and sensory dysfunction following spinal cord
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       integrin; alphaD subunit; CD11c subunit; CD11b subunit;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human Beta2 integrin alphaCD11b subunit.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 5; Page 191-194; 270pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABG61469 standard; Protein; 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-OCT-2001; 2001WO-US32059.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-OCT-2000; 2000US-0688307.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Van Der
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2002-463260/49.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first
```

an

780

1020

888888888888888888888888888888888

a

õ

qq

ò

ò

g ે g ò g ò g ò g ò g ઠે d ò

```
FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTABILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPO 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
                                                                                                                                                                                                                                                                                                                                                                                                                                                      RINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                 GPREFNUTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                      SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                    QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                 QLELPVKYAVYWVVTSHCVSTKYLNFTASENTSRVWQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                     RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                   SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                             SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Integrin; antiinflammatory; imunosuppression; nephritis; dermatitis; inflammatory disease; autoimmune disorder; Crohn's disease; human immunodeficiency virus; HIV; myocardial infarction; Sjorgen's syndrome; rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Modified integrin-I or integrin I-like domain polypeptide useful as immunogen to produce antibodies specific to polypeptide, comprises disulfide bond such that polypeptide is stabilized in a desired
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This invention relates to a modified integrin-I or integrin I-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Page 109-112; 112pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human integrin 1 alpha-M subunit protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Encoded by GGG
                                                                                                         GPREFNVTVTVRNDGEDSYRTQVTFFFP1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Key Location/Qualifiers
Misc-difference 499..500
/note= "Encoded by G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  standard; Protein; 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ΰ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-SEP-2000; 2000US-229700P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31-AUG-2001; 2001WO-US27227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BLOOD RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Shimoaka
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2002-382964/41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-PSDB; ABK50046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200218583-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (BLOO-) CENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Springer TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               conformation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAU80252;
                                                                                                                                                                                                                                                                857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAU80252
                                                      737
                                                                                                                                                            797
                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                       917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        716
                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAU80252
ID AAU8
XX
AAC AAU8
XX
DT 15-J
DE Huma
XX
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INTER
INT
                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                  셤
                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઢ
                                           ያ ያ
anti-alpha d (Beta2 integrin alpha2 subunit) monoclonal antibody to a spinal cord injury victim. The method also involves the use of a ligand selected from ICAM-R or VCAM-I (intracellular cell adhesion molecule, vascular cell adhesion molecule). The method is useful for promoting locomotor recovery, inhibiting locomotor damage, limiting compotion impairment, or limiting autonomic and sensory dysfunction following spinal cord injury. In particular, the spinal cord injury comprises compression of the spinal cord. The antibodies are also useful for reducing inflammation 4th esite of a central nervous system injury. The specification also details the identification of Beta2 integrin are implicated in diseases such as LAD (leukocyte adhesion deficiency, inflammatory response, diabetes, multiple sclarosis, arthritis, graft atherosclerosis, immune complex alveolitis arthritis, graft atherosclerosis, immune complex alveolitis and leukaemia. The present sequence is a Beta2 integrin alpha subunit sequence included for comparison with the Beta2 integrin alpha brotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YDLALDSGRPHSRAVFNETRROTGVLGLTQTCETLKLQLPNCIEDPVSFIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TDGEKFGDPLGYEDVIPBADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FPEALRGCPQEDSDIAF UNDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NFEALKTIONOLREKIFALEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRGORARWOCDAVLYGE&GOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEOLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 5862; DB 23;
Pred. No. 0;
7; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99.8%
ilarity 99.3%
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1153 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Simi
Matches 1129;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        sednences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
```

an

aB

g

음

õ 셤

ò

```
domain polypeptide comprising at least one disulfide bond so that the domain is stabilised in a desired conformation. The polypeptide of the invention may have antilinflammacory or immosuppressive activities. The polypeptides of the invention have an open conformation and are useful as immunogens to produce antibodies that selectively bind to integrin I-domain; and for identifying a modulacor of integrin activity, or of interaction of an integrin and a cognate ligand. The polypeptide of the invention, or antibodies (preferably anti-LFA-1 antibody) confined in the invention or autoimmune disorder in a subject and for inflammatory or autoimmune disorder in a subject and for inflammatory or autoimmune disorder in a subject and for inflammatory or autoimmune disorder in a subject and for inflammatory or autoimmune disorder in a subject and for inflammatory or autoimmune disorder in a subject and for inflammatory or autoimmune disorder in a subject. The confined in the syndrome, rheumatoid arthritis, dermatitis.

A therapeutic composition comprising the pebtide of the invention is useful for treating an integrin mediated disorder in a subject. The colypeptides and/or active or antigenic fragments are useful as reagents for diagnosis of integrin-mediated disorders. The present sequence represents the human integrin-all alpha-M protein subunit used to generate the mutant polypeptides of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            736
                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NFEALKTIQNQLREKIFAİEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FPEALRGCPQEDSDIAFL/VDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVWEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TDGEKFGDPLGYEDVI PEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAPRSEKSROELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGOVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HGTSGSGISPSHSQRIAGEKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGOIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                         PNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAJILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                                                                                                                                                      Score 5862; DB 23; Length 1153;
Pred. No. 0;
7; Mismatches 1; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                     1;
                                                                                                                                                                                                                                                                                                                                                                        99.8%;
                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 99.3
Matches 1129; Conservative
                                                                                                                                                                                                                                                                                                                                       1153 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           557
                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          497
     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

```
1036
                                                                                                                                                                                                                          RINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                  FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSQTET 1096
                                                                                                                                       916
                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mac-1; integrin alpha subunit; variant integrin inserted domain protein; open conformation; integrin related inflammatory disorder; integrin related immunological disorder; rheumatoid arthritis; ischaemia; reperfusion; hypovolemic shock; infarction; cerebral shock; viral infection; cancer; gene therapy; vaccine; bloactive agent screening.
                                                        840
                                                                                                             900
                                                                                                                                                                                               916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention comprises structurally biased variant integrin inserted (I) domain proteins, wherein the alterations to the protein occur in at least
 780
                         796
                                                                               856
                                                                                                                                                                                                                                                                                                                                        KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                     QLELPVKYAVYWVYTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                          RINOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                         SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                   SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                           QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                     GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New integrin I domain protein having alteration in at least 2 noncontiguous regions and exits in an open conformation, useful for treating, preventing or suppressing inflammatory or immunological disorders
                                                                                                                                                                                                                                                                                                                                                         KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OF TECHNOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                           Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 1; Fig 1F; 90pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                          AA014428 standard; protein; 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Integrin Mac-1 alpha subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09-JUL-2001; 2001WO-US21805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-JUL-2000; 2000US-216600P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (CALY ) CALIFORNIA INST
(BLOO-) CENT BLOOD RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2002-148167/19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200204521-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  03-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Springer T;
                                                                                                                                                                                                                                                                                                                                                                    1097
                         737
                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                              1037
                                                                                                                                                                                                                                                                                                                                          1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AA014428;
                                                      781
                                                                               797
                                                                                                           841
                                                                                                                                       857
                                                                                                                                                                   901
                                                                                                                                                                                              917
                                                                                                                                                                                                                                                      977
                                                                                                                                                                                                                                                                                                                                                                                                               ហ
                                                                                                                                                                                                                                                                                                                                                                                                                            AA014428
                                                                                                                                                                                                                                                                                                                                                                                                               RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                               셤
                                                                                                                                   요
                                                                                                                                                                ઠે
                                                                                                                                                                                           셤
                                                                                                                                                                                                                        ሯ
                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                   셤
                                                   Š
                                                                                                          ઠે
                                                                                                                                                                                                                                                                                  ð
```

8 8 8 8 8 8							
the proteins are structurally biased to exist in the open conformation, thereby altering the binding ability of the protein. The invention also comprises nucleic acids encoding the variant integrin I domain proteins. The integrin I domain proteins and nucleic acids are useful for treating, preventing or suppressing integrin related inflammatory and immunological disorders (e.g. rheumatoid arthritis). The variant integrin I domain proteins and nucleic acids can also be used for treating; ischemena, repetution (e.g. hypovolemic shock); infarction; creating ischemena/ infection; and cancer. The variant integrin I domain proteins may be used in gene therapy, as vaccines and to screen for placetines. The present amino acid sequence represents the Mac-1 alba subunit of integrin.	Sequence   1153 AA;	17 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI 76 61 RLQVPVEAVMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120 77 RLQVPVEAVMMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 136 121 FPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMGQLKKSKTLFSLMQYSEEF 180 121 FPEALRGCPQCDSDIAFLVDGSGSIIPHDFFRAKEFISTVMGQLKKSKTLFSLMQYSEEF 180 122 FPEALRGCPQCFQFFFTAGGGGGTIPHDFFRRAKEFISTVMGQLKKSKTLFSLMQYSEEF 196	RIHFTFKEFONNENPRSLIKPITOLLGRIHTATGIRKVVRELFNITNGARKNAFKILILI 2 RIHFTFKEFONNENPRSLIKPITOLLGRIHTATGIRKVVRELFNITNGARKNAFKILILI 2 RIHFTFKEFONNENPRSLIVKPITOLLGRIHTATGIRKVVRELFNITNGARKNAFKILILI 3 TDGEKFGDPLGYEDVI PEADREGVIRYVIGVGDAFRSEKSRQELNITVASKPPRDHVGIN 3 TDGEKFGDPLGYEDVI PEADREGVIRYVIGVGDAFRSEKSRQELNITASKPPRDHVFQIN 3 TDGEKFGDPLGYEDVI PEADREGVIRYVIGVGDAFRSEKSRQELNITASKPPRDHVFQVN 3	7 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	421 QNTGMWESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 480	541 HGTSGSGISPSHSQRIAGSKLSPRLOYFGQSLSGGQDLTWDGLVDLTVGAQGHVLLLRSQ 600 557 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600 601 PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT 660 617 PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT 676 618 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRINF 720 619 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRINF 720 611 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRINF 730 721 SLYGTPLSAPGNLRFVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 780	737 \$LVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 796 781 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV 840
38888888888888	XX SQ OQ BBe Ma	8 6 8 6	3 6 6 6	\$ 8 \$ 8	6 8 6 8	8 8 8 8 8	d yo

DD DD DD DD DD DD DD DD DD DD DD DD DD
--

556

480 496 900

616

9 919 720 736 780 196 840 856 900 916 960 916

```
1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSQTET 1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1081 KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1097 KVEPFEVPNPLLLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                           SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           917 QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
                                                HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                               PVLRVKA I MEFNPREVARNV FECNDOVVKGKEAGEVRVCLHVQKSTRDRLREGO I QSVVT
                                                                                                                                                                                                                                                                                                     PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLKEGQIOSVVT
                                                                                                                                                                                                                                                                                                                                                                YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                   SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                            QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                p150,95 leucocyte adhesion receptor alpha-subunit;
hairy cell leukaemia; rhinovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             p150.95 alpha subunit encoded by clone lambdaX47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           89..91
/label=glycosylation site
385..387
/label=glycosylation site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61..63
/label=glycosylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAR07120 standard; protein; 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (updated)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Key
Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-MAR-2003
05-FEB-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic.
                                                               437 (
                                                                                                                                                                                                                                   557
                                                                                                                                                                                                                                                                                                                  617
                                                                                                                                                                                                                                                                                                                                                                . 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         737
                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                        677
                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAR07120;
                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH SECTION OF THE FITTH
                                                        a
                                                                                                                                            셤
                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                  쉽
                                                                                                                                                                                                                                                                                                                                                       ठे
                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                      ሯ
                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . <u>අ</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mac-1 alpha subunit is involved in the response to inflammation, i.e. recognition of and migration to sites of inflammation. It also attaches to cellular substrates as part of this function making it useful in visualising endothelial tissue.

Mac-1 is a member of the Integrin Gene superfamily.

(Updated on 25-MAR-2003 to correct PR field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PPEALRGCPQEDSDIAFL VDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  257 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSROELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NFEALKTIQNQLREKIFA; EGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 5852; DB 11; Length 1153;
Pred. No. 0;
7; Mismatches 2; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            corresp. DNA useful for and in diagnosis
1045..1047
/*label= putative N-glycosylation site 1051..1053
/*label= putative N-glycosylation site 1076..1078
/*label= putative N-glycosylation site /*label= putative N-glycosylation site
                                                                                                                          1..16
/*label= signal peptide
1106.1134
/*label= putative transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                             INST INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New pure Mac-1 alpha sub-unit and cinflammation and viral infections,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page ?; ?pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99.6%;
                                                                                                                                                                                                                                                                                                                                                              88US-0235353
89US-0321239
                                                                                                                                                                                                                                                                                                                    89EP-0115159
                                                                                                                                                                                                                                                                                                                                                                                                                           (DAND ) DANA FARBER CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity 99.2
1e8 1128; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Corbi A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1990-125938/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1153 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-PSDB; AAQ04043.
  Modified-site
                                         Modified-site
                                                                                 Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Springer TA,
                                                                                                                                                                                                                                                                                                                       17-AUG-1989;
                                                                                                                                                                                                                                                                                                                                                            23-AUG-1988;
09-MAR-1989;
                                                                                                                                                                                                                                                                             25-APR-1990
                                                                                                                                                                                                                                   EP364690-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                               region
                                                                                                                                                                      region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nex
```

ઠે 셤 ò g ò 요 8 G

S 8

중 음

상 점

```
VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   959
 240
                                                 300
                                                                                                   360
                                                                                                                            377
                                                                                                                                                       420
                                                                                                                                                                               437
                                                                                                                                                                                                         480
                                                                                                                                                                                                                                  497
                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                      556
                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                        616
                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                           919
                                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                                               736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           974
                       257
                                                                         317
                                                                                                                                                                                                                                                                                                                                                                                                                                     SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QLELPVKYAVYMVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  915 QLELPVKYAVYTVVSSHEQFTKYLNFSESEEKESHVAMHRYQVNNLGQRDLPVSINFWVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEGQKQGQLRSLHLTCDSA--PVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NFEALKTIQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                  QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                        PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                         HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                               YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SCALKSTSCSINHPIPPENSEVTPNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                        GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                      PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKROYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Protein; 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . 096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW65091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW65091:
                                                                                                                              318
                                                                                                                                                                                  378
                                                                                                                                                                                                                                                                                       498
                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                             617
                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                         198
                                                                                                                                                                                                                                     438
                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                           557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                   241
                                                                                                      301
                                                                                                                                                          361
                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAW65091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SAXAX
                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                            윰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                     요
                                                                      요
                                                                                                                          셤
                                                                                                                                                        ઠે
                                                                                                                                                                              요
                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                g
                                             8
                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHOTCSBNTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  total RNA extracted from phorbol myristate acetate stimulated HL-60 myelomonocytic cells. The library was screened with oligonucleotide probes based on tryptic peptide fragments of p150.35. The sequence can be attached to appropriate control elements and expressed in prokaryotic and eukaryotic cells. The protein can be used to treat or prevent rhinoviral infection because it interacts with ICAM-1 and inhibits cell-virus attachment. It can also be used as an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Treatment of viral esp. rhino-viral infection - by admin. of alpha sub-unit of p150.95 cell surface adhesion receptor, opt. together with a beta chain of CD-18 [family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Clone lambda X47 was isolated from a cDNA library constructed from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 11; Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               anti-inflammatory agent.
See also AAQ06603-4, AAQ06606, AAR07121-8 and AAR07152-6. (Updated on 25-MAR-2003 to correct PR field.)
(Updated on 25-MAR-2003 to correct PA field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 58.9%; Score 3460; DB 11; Best Local Similarity 60.9%; Pred. No. 7e-280; Matches 687; Conservative 141; Mismatches 295;
                                                                                                                                /label=glycosylation site
1050.1052
/label=glycosylation site
               label=glycosylation site
                           697...699
/label=glycosylation si
735...37
/label=glycosylation si
899..901
/label=glycosylation si
                                                                                                                                                                                                                1.19
/label=signal peptide
                                                                                                       904..906
/label=glycosylation
                                                                                                                                                                                                /label=transmembrane
                                                                                                                                                                                                                                                                                                                                                                                    INST INC.
                                                                                                                                                                                                                                                     /label=N-terminus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Fig 3; 59pp; English.
                                                                                                                                                                                                                                                                                                                                   90WO-US01257
                                                                                                                                                                                                                                                                                                                                                                                    DAND ) DANA FARBER CANCER
                                                                                                                                                                                                                                                                                                                                                                                                              TA;
                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1990-304985/40.
N-PSDB; AAQ06068.
                                                                                                                                                                                                                                                                                                                                                                                                               Springer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1163 AA;
    Modified-site
                         Modified-site
                                                     Modified-site
                                                                               Modified-site
                                                                                                         Modified-site
                                                                                                                                 Modified-site
                                                                                                                                                           Modified-site
                                                                                                                                                                                                                                                                                                                                09-MAR-1990;
                                                                                                                                                                                                                                                                                                                                                          02-FEB-1989;
                                                                                                                                                                                                                                                                              WO9010646-A
                                                                                                                                                                                                                                                                                                       20-SEP-1990
                                                                                                                                                                                                                                                                                                                                                                                                              Corbi AA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                     Domain
                                                                                                                                                                                                               Region
                                                                                                                                                                                                                                       Region
```

g

8 6 8 6

ઠે

us-09-902-481b-5.rag

Ť,

```
$
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Protein; 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human CD11c protein sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAB07361 standard;
                                                                                                                                                                                               557
                                                                                                                                                                                                                                                                                        677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB07361;
              318
                                                                                                       438
                                                                                                                                                 498
                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1080
                                                                                                                                                                        541
                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                          617
                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                  797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1095
                                    361
                                                          378
                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAB07361

ID AAB0

XX

AC AAB0

DD 17-c

XX

XX

XX

DD Hume

KW Hume

KW Ibul

KW athf

KW athf

KW athf

KW athf

KW Athew
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
                                                                                                                                                쉽
                                                                                                                                                                                           g
                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                  δ
                                                        셤
                                                                                                  셤
                                                                                                                           à
                                                                                                                                                                    ò
                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                  음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                 This sequence represents a human beta-integrin CDIIc subunit which is used to describe a method for identifying compounds that modulate the interaction of the beta-integrin alpha-d subunit with a binding partner of alpha-d widh involves contacting an alpha-d polypeptide with an alpha-d binding partner, one of which is immobilised and the other of the compound affects binding between the alpha-d polypeptide and alpha-d binding partner, where the alpha-d polypeptide is alpha-d or its fragment comprising the cytoplasmic, transmembrane or extracellular domain of alpha-d. Compounds that modulate alpha-d binding could be used to treat diseases such as type-I diabetes, atherosclerosis, multiple sclerosis, syndrome and rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 RLOVPVEAVNMSLGLSLAATTSPPOLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NFEALKTIQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         79
                     Beta-integrin alpha-d subunit; human; modulator; treatment; psoriasis; type-I diabetes; atherosclerosis; multiple sclerosis; asthma; lung'inflammation; acute respiratory distress syndrome; CD11c subunit; rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--OLTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHFTFEEPRRISNPLSLLASVHQLQGFTYTATAIQNVVHRLFHASYGARRDAIKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOGKKEGDSLDYKDVIPMADAAGIIRYAIGVGLAFQNRNSWKELNDIASKPSQEHIFKVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              . 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 1163;
                                                                                                                                                                                                                                                                                                  Screening assay for modulators of integrin binding - usin immobilised or labelled alpha-d polypeptide, useful for,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cch , 58.6%; Score 3446; DB 19; al Similarity 60.8%; Pred. No. 1e-278; 686; Conservative 147; Mismatches 290;
  subunit protein.
                                                                                                                                                                                                                                                                                                                                               Example 5; Fig 1A-D; 106pp; English
                                                                                                                                                                                                                                                      Ξ
                                                                                                                                                                      95US-0485618.
93US-0173497.
94US-0286889.
94US-0362652.
                                                                                                                                                                                                                                                     Gallatin WM, Van DER VIEREN
                                                                                                                                                 95US-0485618
  Beta-integrin CD11c
                                                                                                                                                                                                                                                                                                                         treating type-I diabetes
                                                                                                                                                                                                                                                                             WPI; 1998-206565/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1163 AA;
                                                                                                                                                                                                                                CORP.
                                                                                                                                                                                                                                SODI (-SODI)
                                                                                sapiens
                                                                                                                                                                                                         21-DEC-1994;
                                                                                                                                                07-JUN-1995;
                                                                                                                                                                                    23-DEC-1993;
05-AUG-1994;
                                                                                                    US5728533-A.
                                                                                                                                                                       07-JUN-1995;
                                                                                                                           17-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
  Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Loc
Matches
                                                                                Ношо
  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
```

```
1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         377
                                        420
                                                                                 437
                                                                                                                             480
                                                                                                                                                                   497
                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                          556
                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                919
                                                                                                                                                                                                                                                                                                                                                                                              99
                                                                                                                                                                                                                                                                                                                                                                                                                                    919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human, macrophage infiltration inhibition, alpha d integrin; leukocyte integrin; Leu-CAM; leukointegrin; immune response; inflammation; leukocyte adhesion deficiency; LAD; Type I diabetes; atherosclerosis; multiple sclerosis; asthma; psoriasis; beta2 integrin; lung inflammation; acute respiratory distress syndrome; Crohn's disease; rheumatoid arthritis; central nervous system injury; CD11c.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEGQKQQLRSLHLTC--CSAPVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HGVLGPSISPSHSQRIAGSQLSSRLQYFGQALSGGQDLTQDGLVDLAVGARGQVLLLRTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PFFGIQEEFNATLKGNLSFDWY1KTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                        GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                 GAFLYPPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVQSLVLGAPRYQHIGKAVIFI
                                                                                                                             QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                     HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                           PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGOIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                     661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LDLALAPGRLS PRAIFQETKNRSLSRVRVLGLKAHCENFNLLLPSCVEDSVIPIILRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
```

556

480 497

437

900

99 919 720 736 780 796 854

```
960 VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Beta2 integrin; alphaD subunit; CD11c subunit; CD11b subunit; LAD; leukocyte adhesion deficiency; inflammatory response; diabetes; multiple sclerosis; arthitis; sid states carrosis; neuroprotective; inflammatory bowel disease; Crohn's disease; ulcerative colltis; immune complex alveolitis; leukaemia; ICAM-R; VCAM-1; anti-inflammatory; infracellular call adhesion molecule; vascular cell adhesion molecule; vascular cell adhesion molecule; autonomic dysfunction; sensory dysfunction; spinal cord injury.
                                                                                                                                                                                                                                                                                                                                                                                                      SNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEGOKOGOLRSLHLTC--CSAPVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QLELPVKYAVYWVTSHGVSTKYLNFTAS - ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                           QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                PRGWR-RWWCDAVLYGEQGHPWGRFGAALTVLGDVNGDKLTDVVIGAPGEEENRGAVYLF
                                                                                                                                                                                                                     HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                          HGVLGPSISPSHSQRIAGSQLSSRLQYFGQALSGGQDLTQDGLVDLAVGARGQVLLLRTR
                                                                                                                                                                                                                                                                                             PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                             YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                           SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                  PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA1GAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human Beta2 integrin alphaCD11c subunit.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABG61470 standard; Protein; 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABG61470;
                                                             421
                                                                                                    438
                                                                                                                                           481
                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                            557
                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                          617
                                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABG61470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                              셤
                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                      임
                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ે
                                                           ઠે
                                                                                                                                         ò
                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Integrins are a class of membrane-associated molecules that participate in cellular adhesion. Integrins are made up of an alpha subunit and a net assubunit. One class of human integrins are restricted to expression in white blood cells and have a common beta2 subunit: the leukocyte integrins, Leu-CAMS, leukohntegrins or beta2 integrins. Beta2 integrins protein sequence is the human integrin alpha subunit CDIIc. This sequence was used in an alignment to identify a novel beta2 integrin alpha subunit alpha, d(AAA60014 and AAB07159). The present sequence has approximately 64 identity to the protein sequence of alpha d. The Alpha d gene and protein may be useful in therapy for diseases linked to have a class of function e.g. Type I diabetes, atherosclerosis, multiple sclerosis, asthma, psoriasis, ung inflammation, acute respiratory distress syndrome, rheumatoid arthritis and leukocyte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TDGKKEGDSLDYKDVIPMADAAGIIRYAIGVGLAFQNRNSWKELNDIASKPSQEHIFKVE 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NFEALKTIONOLREKIRAIEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          adhesion deficiency (LAD). In addition, anti-alpha d monoclonal antibodies may be used in the inhibition of macrophage infiltration at the site of a central nervous system injury. The monoclonal antibodies can also be used to detect and diagnose Crohn's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHFTFEEFRRTSNPLSLLASVHQLQGFTYTATAIQNVVHRLFHASYGARRDAIKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DFDALKDIONOLKEKIRAIEGTETISSSFELEMAOEGFSAVFTPDGPVLGAVGSFTWSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FNLDTEELTAFRVDSAGFGDSVVQYANSWVVVGAPQKIIAANQIGGLYQCGYSTGACEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RLOVPVEAVNMSLGLSLJAATTSPPOLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  80 GLÓVPPEAVNMSLGLSIJASTISPSÓLLACGPIVHHECGRNMYLTGLCFLLGPT--ÓLTÓR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKBFISTVMEQLKKSKTLFSLMQYSEBF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                        Use of novel anti-alpha integrin d monoclonal antibodies to inhibit macrophage infiltration and reduce inflammation at central nervous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  147; Mismatches 290;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 3446;
                                                                                                                                                                                                                                                                                                                                                                                                                        Example 5; Fig 1; 270pp; English.
                                                                                                                                                                                                                                                                Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     58.6%;
                                                                                                                                                                                                                                                                Van Der Vieren
                                                                                                                                                                98US-0193043
                                                                                                                             99WO-US27139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          686; Conservative
                                                                                                                                                                                                                                                                                                 WPI; 2000-387751/33.
                                                                                                                                                                                                                                                                                                                                                                                     system injury sites
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1163 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                             WO200029446-A1.
                                                                                                                                                                                                                         (ICOS-) ICOS
                                                                                                                                                                                                                                                              Gallatin MW,
        Homo sapiens
                                                                                                                           16-NOV-1999;
                                                                                                                                                                                  08-JUL-1999;
                                                                                                                                                                16-NOV-1998;
                                                                                  25-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
```

g

ò

g ò ద

ઠે

8 8

g

ò

g ò

ઠે

540

556

497

900

919

```
721 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SNLELNAEVMYWNDGEDSYGTTITFSHPAGLSYRYVAEGQKQQQLRSLHLTC--CSAPVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QLELPVKYAVYMVVTSHGVSTKYLNFTAS - ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            915 QLELPVKYAVYIVVSSHEQFTKYLNFSESEEKESHVAMHRYQVNNLGQRDLPVSINFWVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            960 VRINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                           HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                   557 HGVLGPSISPSHSQRIAGSQLSSRLOYFGQALSGGODLTODGLVDLAVGARGOVLLLRTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                             QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                    PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLP
                                                                                                                                                                         PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Prostate cancer, gene expression, differential regulation,
molecular marker, drug target, cancer detection, cancer diagnosis,
cancer staging, cancer grading, cancer assessing, cancer monitoring.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Protein differentially regulated in prostate cancer #9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABU07406 standard; Protein; 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-JAN-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200281638-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-OCT-2002
                                                                                                                  438 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1095
                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABU07406;
                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                                        378
                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                             g
                                                                                                                                                                                   셤
                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                 쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to promoting locomotor recovery, inhibiting autonomic and sensory dysfunction following spinal cord injury by administering an and sensory dysfunction following spinal cord injury by administering an anti-salpha d Beta2 integrin alpha2 subunit) monoclonal antibody to a carti-alpha d Beta2 integrin alpha2 subunit) monoclonal antibody to a cartification following spinal cord injury victim. The method also involves the use of a ligand selected from ICAM-R or VCAM-1 (intracellular cell adhesion colecule, vascular cell adhesion molecule). The method is useful for promoting locomotor recovery, inhibiting locomotor damage, limiting outconomic and sensory dysfunction following spinal cord night, in particular, the spinal cord injury. Comprises compression of the spinal cord. The antibodies are also useful for the specification also details the identification of Beta2 integrin alpha collar alpha collar antibodies. Beta2 integrins are implicated in diseases such as LAD (leukocyte adhesion deficiency, inflammatory response, diabetes, multiple sclerosis, arthitis, graft atherosclerosis, inflammatory bowel disease.

Crohn's disease, ulcerative collitis, immune complex alveolitis and leukaemia. The present sequence is a Beta2 integrin alpha bubunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PPEALRGCPQEDSDIAFL/VDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Use of an anti-alpha-d mondclonal antibodies for promoting locomotor recovery, inhibiting locomotor damage, limiting locomotor impairment, or limiting autonomic and gensory dysfunction following spinal cord
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tch 58.6%; Score 3446; DB 23; Length 1163; al Similarity 60.8%; Pred. No. 1e-278; 686; Conservative 147; Mismatches 290; Indels 6;
                                                                                                                                                                                                                                                                                                                                                      Example 5; Page 194-198; 270pp; English.
                                                                                                                                                                                         Ξ
                                                                            2001WO-US32059
                                                                                                             13-OCT-2000; 2000US-0688307
                                                                                                                                                                                       Van Der
                                                                                                                                                                                                                            WPI; 2002-463260/49.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1163 AA;
                                                                                                                                                    (ICOS-) ICOS CORP.
WO200230980-A2
                                                                                                                                                                                       Gallatin WM,
                                                                            15-OCT-2001;
                                      18-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  section
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                                                                                                                                                                                                                                                         injury
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Loc
Matches
```

ઠે 원 ò g ò a ò g ò g õ

1019

720 736 780 796 840 854 900 914 959 974

99 919 1034

556 9 616 99 919 720 736 780 796

480

497

360

377

420

437

us-09-902-481b-5.rag

```
VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SNLELNAEVMVWNDGEDSYGTIIFSHPAGLSYRYVAEGQXQGQLRSLHLTCDSAPVG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1035 PSFSVQBELDFTLKGNLSFGWVRQILQKKVSVVSVAEIIFDTSVYSQLPGQEAFWRAQTT
                                                                                                                                                           SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                              PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                          HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                       QTHLTFEEFRRTSNPLSLLASVHQLQGFTYTATAIQNVVHRLFHASYGARRDATKILIVI
                                                                                                                                  301 NFEALKTIQNOLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                       GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                            QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAR78166 standard; Protein; 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human beta-2 integrin alpha-d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-DEC-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . 096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAR78166;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                       378
                                                                                                                                                                                                                                                                                                                                                                                                                                                498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               797
                                                                                                                                                                                                                                                                                                                                                         438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            617
                                                                                           258
                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                     481
         98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAR78166

1D AAR7

XX

AC AAR7

XX

DT 28-D

XX

XX

XX

XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                . 염
                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                         g
                                                                                                                                       ò
                                                                                                                                                                              셤
                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                     C The invention describes genes (1) which are differentially regulated in a sample comprising prostate [Lisue, which involves determining the number of the parobability that the sample comprises of the probability that the sample comprises of the probability that the sample comprises of the number of the probability that the sample comprises of the number of the number of the probability that the sample comprises of the number of the number of the probability that the sample comprises of prostate cancer. (1) Is useful for assessing a therapeutic or preventive of intervention in a subject Having a prostate cancer, which involves concerned the expression levels of at least 10 genes are determined. (1) is also useful for identifying agents that modulate a biological crivity of a polypeptide differentially regulated in prostate cancer. (2) is also useful for identifying agents that modulate a biological crivity of a polypeptide differentially regulated in prostate cancer. (2) is useful as molecular markers, as drug targets, and for detecting, determining whether the test agent modulates the biological activity. (2) the publy specified a biological activity of the polypeptide, and conditions especially relating to prostate cancer. (3) and its expression of products are used in the diagnostic test to assay for presence of cancer. (3) in tissue sections, in biogys sample, in total RNA, in lymph, in the polypeptide encoded by (1) can be used as target for therapy or drug discovery. (1) can also be used for expressing the polypeptide and thus conditions especially relating to prostate cancer. The polypeptide and of development, the nature of genetic defect, etc. (2) the polypeptide encoded by (1) can be used as target cancer. The polypeptide and thus condition of specific binding partners of the polypeptide and thus condition of specific panes, and groups of genes, expressed in these pathways physiologically relevant to prostate cancer permits the pathways physiologically relevant to prostate cancer permits the pathways
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 RLQVPVEAVNMSLGLSLÅATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              79
                                                                                                                                                                                                                                                                                                                                                                                                     invention describes genes (I) which are differentially regulated in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                       Novel genes which are differentially regulated in prostate cancer, useful for diagnosing prostate cancer in prostate tissue sample and assessing therapeutic or preventive intervention in prostate cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    58.6%; Score 3444; DB 24;
ilarity 60.7%; Pred. No. 1.5e-278;
Conservative 139; Mismatches 299;
                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Page 225-228; 416pp; English.
                                                                                                                         (ORIG-) ORIGENE TECHNOLOGIES
                                                         06-APR-2001; 2001US-281731P
06-APR-2001; 2001US-281732P
             08-APR-2002; 2002WO-US10824
                                                                                                                                                                                                              WPI; 2003-058520/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1163 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
nes 685; Conserv
                                                                                                                                                                    ö
                                                                                                                                                                    Jay
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                    Sun 2,
```

1019

à ద ò 요 ò 셤 ò

940

```
TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                   NFEALKTIONOLREKIFAIEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                  GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                        PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                               SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           734 SLVREPIPSPQNLRPVLAVGSQDLFTASLPFEKNCGQDGLCEGDLGVTLSFSGLQTLTVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                 496 PRGQRVQWQCDAVLRGEQGHPWGRFGAALTVLGDVNEDKLIDVAIGAPGEQENRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                      661 YDLALDSGRPHSRAVFNETKNSTRROTOVLGLTOTCETLKLOLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                         QLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                         ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 integrin alpha d subunit, human, cell migration, adhesion; phagocytosis; diabetes; atherosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human beta 2 integrin alpha d subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW23049 standard; Protein; 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                            376
                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              . 096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1030
                                                                                                                                                                                                      436
                                                                                                                                                                                                                                                                                        541
                                                          301
                                                                                                                                                                         421
                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW23049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Beta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                   용
                                                                                                                                                                                                                                                       đ
                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                       ઠે
                                                                                셤
                                                                                                                                                                        ઠે
                                                                                                                                                                                                                        · &
                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                         . Q
                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A probe based on a partial CDNA clone (given in AAQ91727) of canine alpha-TM1 was used to screen a human spleen cDNA library to identify clone 19A2 encoding the beta-1 integrin alpha-subunit, alpha-d. The cDNA was manipulated to allow expression of recombinant alpha-d subunit in COS and CHO cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
Beta-2 integrin alpha-d subunit; antiinflammatory; arteriosclerosis; inflåmmatory bowel disease; asthma.
                                                                                                                             /note= "this region is homologous to the insert common to CH11a,b,c and may be a site for interaction with ICAM family proteins"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              oŧ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alpha sub-unit polypeptide of human beta 2 integrin - used to identify potential antiinflammatory agents, for the treatment of graft arteriosclerosis, inflammatory bowel disease, asthma, etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 58.0%; Score 3411; DB 16; Length ilarity 59.4%; Pred. No. 8.9e-276; Conservative 166; Mismatches 284; Indels
                                                                                                                                                                                       "putative cation binding
                                                                                                                                                                                                                  "putative cation binding
                                                                                                                                                                                                                                            "putative cation binding
                                                                                            /note= "extracellular domain"
150..352
                                                                                                                                                                                                                                                                          'note= "transmembrane region"
                                                                                                                                                                                                                                                                                                     "cytoplasmic domain"
                                                                      Location/Qualifiers
17..1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Vieren
                                                                                                                                                                                                 518..527
/note= "put
592..600
/note= "put
1109..1128
                                                                                                                                                                                                                                                                                                                                                                                                                   94US-0286889
93US-0173497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7; Page 82-87; 172pp;
                                                                                                                                                                                                                                                                                                                                                                                          94WO-US14832
                                                                                                                                                                                                                                                                                      ..1161
                                                                                                                                                                        474
                                                                                                                                                                                                                                                                                                     'note=
                                                                                                                                                                                        note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Van Der
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1995-240603/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1161 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; AAQ91712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gallatin WM,
                                           Homo Bapiens
                                                                                                                                                                                                                                                                                                                                WO9517412-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ICOS-) ICOS
                                                                                                                                                                      Binding-site
                                                                                                                                                                                                   Binding-site
                                                                                                                                                                                                                               Binding-site
                                                                                                                                                                                                                                                                                                                                                                                       21-DEC-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                     05-AUG-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                  23-DEC-1993;
                                                                                                                                                                                                                                                                                                                                                            29-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 671;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
                                                                                    Domain
                                                                                                               Region
                                                                                                                                                                                                                                                                                      Domain
                                                                                                                                                                                                                                                             Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim
```

720 733 780 793 840 852 900 911 959 971

673

1079 1089

> 8 g ò . G ò g ò

435

360 375

300

480 495 540 555 9 615 9 673 720 733 780 793 840 852 900 911 959

```
VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   794 SSLELNVIVTVWNAGEDSYGTVVSLYYPAGLSHRRVSGAQKQPHQSALRLACETV-PTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FDLALDPGRLTSRAIFNETKNPTLTRRKTLGLGIHCETLKLLLPDCVEDVVSPIILHLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                        HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                           HGASESGISPSHSQRIASSQLSPRLQYFGQALSGGQDLTQDGLMDLAVGARGQVLLRSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                        301 NFEALKTIONOLREKIFALEGTOTGSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                    PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                              QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW72825 standard; Protein; 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human alpha-d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19-JAN-1999
                                                                                                                                                                                                                                                                                                  436
                                                                                                                                                                                                                                                                                                                                                                                                                                            256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW72825
                                                                                                                                                                                                                                                                                                                                                                       96
                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EXHXHXB
                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    용
                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                       셤
                                                                                                                       ò
                                                                                                                                                      셤
                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                 ઠે
                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 FPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This polypeptide comprises a novel human beta 2 integrin subunit, designated alpha d. Its sequence was deduced from a cDNA clone (see AAT79220) isolated from a spleen cDNA library. Alpha d is involved in cell migration phagocytosis and cell-cell interaction. Recombinant alpha d polypeptides can be expressed in transformed host cells for use in assays for identifying antibodies or other compounds that modulate alpha d activity or which modulate the interaction between alpha d activity or which modulate the circaction between alpha d aligand, for treating or preventing disease in which macrophages are implicated. Treatment is applicable to disease states in which alpha d binding, or incalised accumulation of cells which express alpha d, is implicated such as such as type I diabetes, atheroselerosis, multiple sclerosis, asthmal psoriasis, lung inflammation, acute respiratory distress syndrome and rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FNLDVEEPTIFQEDAGGFGQSVVQFGGSRLVVGAPLEVVAANQTGRLYDCAAATGMCQPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181 RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                        /1109..1128 |
/label= Tránsmembrane_domain
/note= "homologous to the human CD11c transmembrane
region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rat
                                                                                                                                                                                                                                                                 "region homologous to the I (insertion) domain common to CD11a, CD11b and CD11c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .,
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hybridoma 199M and antibody secreted by it - specific for new beta2 integrin subunit, useful to detect subunit in cells and modulate its activity
     multiple sclerosis, asthma, psoriasis, lung inflammation, scute respiratory distress syndrome, rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 3411; DB 18;
Pred. No. 8.9e-276;
166; Mismatches 284;
                                                                                                            /label= Cytoplasmic_domain
150..352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 5; Page 116-120; 222pp; English.
                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Van Der Vieren M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sal Similarity 59.4%; 671; Conservative 10
                                                                                                                                                                                                                                                                                                                                                                                           97WO-US02713
                                                                                                                                                                                                                                                                                                                                                                                                                           96US-0605672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1997-435154/40.
N-PSDB; AAT79220.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1161 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gallatin WM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                (ICOS-) ICOS
                                                                                                                                                                                                                                                                                                                        WO9731099-A1
                                                                                                                                                                                                                                                                                                                                                                                           24-FEB-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                             22-FEB-1996;
                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                        28-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                              Domain
                                                                                                                                             Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Loca
Matches
                                                                                                                                                                                                                    Domain
                                                                                                                                                                                                                                                    Domain
                                                             Homo
```

971

g

ò

q ò g ò

ò

540 555 600 615 660 673 720 720 733

420 435 480

1

```
361 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                        HGASESGISPSHSQRIASSQLSPRLQYFGQALSGGQDLTQDGLMDLAVGARGQVLLLRSL
                                                                                                                                                                                                                                                                                                              794 SSLELNVIVTVWNAGEDSYGTVVSLYYPAGLSHRRVSGAQKQPHQSALRLACETV-PTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EG-LRSSRCSVNHPIFHEGSNGTPIVTFDVSYKATLGDRMLMRASASSENNKASSSKATF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 781 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                    376 GAFLYPPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVQNLVLGAPRYQHTGKAVIFT
                                                                                        PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                  YDLALDSGRPHSRAVFNETKNSTRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNP
                                                                                                                                                                                                                                                                                                                                                                                                                                           SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                       ONTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                             PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human Beta-integrin alpha-d subunit protein isolated from clone 19A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Beta-integrin alpha-d subunit; human; modulator; treatment; pi
type-I diabetes; atherosclerosis; multiple sclerosis; asthma;
lung inflammation; acute respiratory distress syndrome;
rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Protein; 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAW65089 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1090
                                                                                                           436
                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAW65089;
                                                                       421
                                                                                                                                             481
                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Key
Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                g
                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  용
                                                                                                    셤
                                                                                                                                            ò
                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
 ð
                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      è,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present sequence represents human alpha d. The present invention describes: (1) an antibody that specifically binds alpha d, which is a beta 2 integrin alpha-subunit polypeptide; (2) a monoclonal antibody as in (1); (3) an anti-idiotype antibody specific for the monoclonal antibody of (2); (4) a hybridoma cell line producing the monoclonal antibody of (2). Antibodies specific for alpha d can be used in immunohistochemical analysis to localise alpha d to subcellular compartments or individual cells within tissues. Substances that modulate alpha d hinding (which may include antibodies) can be used to treat diabetes, atherosclerosis, multiple sclerosis, asthma, psoriasis, lung inflammation, acute respiratory distress syndrome or arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   77 PLHIRPEAVNMSLGLTLAASTNGSRLLACGPTLHRVCGENSYSKGSCLLLGSRW-EIIQT 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TDGQKYKDPLEYSDVIPQAEKAGIIRYAIGVGHAFOGPTARQELNTISSAPPQDHVFKVD 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NFEALKTIQNQLREKIFA[EGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FNLDVERPTIFQEDAGGFGQSVVQFGGSKLVVGAPLEVVAANQTGKLYDCAAATGMCQPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PPEALRGCPQEDSDIAFL/VDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RIHFTFKEFQNNPNPRSLİKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
Alpha-d; beta-2 integrin alpha subunit; extracellular alpha-d; immunioglobulin; fusion protein; binding molecule; antibody; immunostochemical analysis; diabetes; atherosclerosis; asthma; multiple sclerosis; psoriasis; lung inflammation; arthritis; acute respiratory disperses syndrome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 - useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18.0%; Score 3411; DB 19; Length 19.18.19 59.4%; Pred. No. 8.9e-276; Conservative 166; Mismatches 284; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             for beta-2 integrin alpha-subunit d
analysis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 5; Column 61-66; 106pp; English
                                                                                                                                                                                                                                                                                                                                                                                      Ξ
                                                                                                                                                                                                                                                      95US-0482293
93US-0173497
94US-0286889
94US-0362652
                                                                                                                                                                                                                       95US-0482293
                                                                                                                                                                                                                                                                                                                                                                                      Van Der
                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1998-609318/51.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Antibodies specific immunohistochemical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1161 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                  CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB; AAV67281.
                                                                                                                                                                                                                                                      07-JUN-1995;
23-DEC-1993;
05-AUG-1994;
21-DEC-1994;
                                                                                                                                                                                                                                                                                                                                                  (ICOS-) ICOS
                                                                                                                                                                                                                                                                                                                                                                                    Gallatin WM,
                                                                                                          sapiens
                                                                                                                                                                                                                     07-JUN-1995;
                                                                                                                                             US5831029-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    671;
                                                                                                                                                                                 03-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                             Homo
```

8 6 8

ઠે

g

ò

상염

ያ ዓ

ò

1019

840

900

852

959

911

1029

i kajo

```
096
                                                                                                                                  376
                                                                                                                                                                                                                                                                                          496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  912
                                                                                                                                                                                                              436
                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                        556
                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                   919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                              361
                                                                                                                                                                         121
                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                             g
                                                                                                                            셤
                                                                                                                                                                                                      용
                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                           중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                     ઠે
                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This sequence represents a novel human beta-integrin alpha-d subunit. This sequence is used in a method for identifying compounds that modulate the interaction of alpha-d with a binding partner of alpha-d which involves contacting an alpha-d polypeptide with an alpha-d binding partner, one of which is immobilised and the orber of which is lambolised and the orber of which is lambolised and the orber of which is lambolised and etermining if the compound in the presence of a test compound, and determining if the compound partner, where the alpha-d polypeptide is alpha-d or its fragment comprising the cytoplasmic, transmembrane or extracellular domain of alpha-d. Compounds that modulate alpha-d binding could be used to treat diseases such as type-I diabetes, atherosclerosis, multiple sclerosis, syndrome and rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            THE STATE TO THE STATE TO THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAPRSEKSROELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FPEALRGCPQEDSDIAFHVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9;
                                                                                                                  CD11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Screening assay for modulators of integrin binding - using immobilised or labelled alpha-d polypeptide, useful for, e.
                                                                                                                  oŧ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                  insertion domain
                    17..1161
/note= "Beta_integrin alpha-D subunit"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ouery Match 58.0%; Score 3411; DB 19; Best Local Similarity 59.4%; Pred. No. 8.9e-276; Matches 671; Conservative 166; Mismatches 284;
                                                                                                                    ţ
                                                                           /label= extracellular
                                                                                            150..352
/note= "homologous to
1129..1161
/label= cytoplasmic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 5; Fig 1A-D; 106pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ξ
/label= signal
                                                                                                                                                                                                                                                                                                              95US-0485618.
93US-0173497.
94US-0286889.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gallatin WM, Van DER VIEREN
                                                                                                                                                                                                                                                                           95US-0485618
                                                         17..1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            treating type-I diabetes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1998-206565/18.
N-PSDB; AAV35236.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1161 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                CORP.
                                                                                                                                                                                                                                                                                                              07-JUN-1995;
23-DEC-1993;
05-AUG-1994;
21-DEC-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                (ICOS;) ICOS
                                                                                                                                                                                              US5728533-A.
                                                                                                                                                                                                                                                                           07-JUN-1995
                                                                                                                                                                                                                                     17-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                    Protein
                                                           Domain
                                                                                                Domain
                                                                                                                                       Domain
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
```

VRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019 375 420 435 480 495 540 555 900 615 9 673 720 733 780 793 840 959 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ GPREFNUTVTVRNDGEDSYRIQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTBV 1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE PVLRVKAIMEFNPREVARNVPECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF QLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVFLVP GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR PRGORARWOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKROYKDMMSE 1128 

852 900 911 971

Search completed: November 25, 2003, 14:16:34 Job time : 40.2978 secs

Sequence Seq

Sequence

Sequence Sequence

us-09-902-481b-5.rai

```
1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99.8%; Score 5862; DB 1; Length 1153; 99.3%; Pred. No. 0; 0; 1; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Gallatin, W. Michael
APPLICANT: Gallatin, W. Michael
APPLICANT: Van Der Vieren. Monica
TITLE OF INVENTION: No. 5437958el Human 2 Integrin Alpha
TITLE OF INVENTION: Subunit
NUMBER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
STREET: 233 S. Wacker Drive, 6300 Sears Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTER TO USA
ZIP: 6066-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/173,497
US-08-605-672-2
US-08-482-293A-2
US-08-1943-363-2
US-09-193-043-2
US-09-688-307A-2
US-08-482-293A-99
US-08-482-293A-99
US-09-193-043-99
US-09-193-043-55
US-09-183-043-55
US-08-688-307A-55
US-08-688-307A-55
US-08-688-307A-55
US-08-688-307A-55
US-08-688-307A-55
US-08-688-307A-55
US-08-688-307A-55
US-08-688-307A-55
US-08-688-307A-55
US-08-688-307A-55
US-08-688-307A-55
US-08-688-307A-55
US-08-688-307A-55
US-08-688-307A-55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: NO. 5437958and, Greta E.
REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 27866/31363
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-474-6300
TELEFAX: 312-474-0448
                                                                                                                                                                                                                                                                                                                          ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 3, Application US/08173497
Patent No. 5437958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>ښ</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 1153 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity 99.3
Matches 1129, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear MOLECULE TYPE: protein
                  STREET: 233 S. We
CITY: Chicago
STATE: Illinois
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                     US-08-173-497-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-173-497-3
                                                                              Query Match
   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             43, Appl
5424399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Appl
Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Appli
Appli
Appli
Appli
Appli
Appli
Appli
                                                                                                                            (without alignments)
3547.268 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Appl
Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                             ; Search time 13.5618 Seconds
                                                                                                                                                                        US-09-902-481B-5
5876
1 FNLDTENAMTFQENARGFGQ.....FKRQXKDWMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 3, P
Sequence 3, P
Sequence 3, P
Sequence 3, P
Sequence 3, P
Sequence 3, P
Sequence 3, P
Sequence 3, P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 43
Patent No. 5
Sequence 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Issued Patents AA:*

1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*

2: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*

3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*

4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*

5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*

6: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
                Gen¢ore version 5.1.6
(c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-173-497-3
US-08-286-889-3
US-08-485-618-3
US-08-865-618-3
US-08-605-672-3
US-08-482-293A-3
US-08-943-363-3
US-09-193-043-3
US-09-193-043-3
US-08-476-062A-43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PCT-US96-01314-44
US-08-266-88-4
US-08-266-88-4
US-08-68-618-4
US-08-605-672-4
US-08-605-672-4
US-08-402-2338-4
US-08-413-33-4
US-08-113-014-4
US-09-688-3077-4
                                                                                                                                                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PCT-US96-01314-43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-476-062A-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-173-497-2
                                                                                                                                                                                                                                                                                       328717 Begs, 42310858 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                    Post-processing: Minimum Match 08
Maximum Match 1008
Listing first 45 summaries
                                                                                                             14:13:09
                                                                               - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5424399-2
                                                                                                                                                                                                                                                         Gapop 10.0 , Gapext 0.5
                                                                                                             November 25, 2003,
                                                                                                                                                                                                                                                                                                                                                     seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               000m40000011111000m4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11153
11153
11153
11153
11153
11153
11163
11163
11163
11163
11163
11163
11163
11163
11163
11163
11163
                               Copyright
                                                                                                                                                                                                                                         BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5862
5862
5862
5862
5862
5862
5863
5863
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831.5
5831
                                                                                                                                                                                            Perfect score:
                                                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                     Minimum DB Maximum DB
                                                                              OM protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Database :
                                                                                                                                                                                                            Sequence:
                                                                                                             Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Result
```

ö

Gaps

ö

요 ઠે 셤 ò ద ò a

q

ò

g

ઠે

음

ò

유

ે

8

셤 ò

```
FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              257 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NFEALKTIONOLREKIFA1EGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FNLDTENAMTFQENARGFGOSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                 2 Integrin Alpha Subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1153;
                                                                                                                                                                   Borun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indela
                                                                                                                                                                   생
                                                                                                                                                               oole, Gerstein, Murray
Drive, 6300 Sear Tower
                                                                                                                                                                                                                                                                                                                                            #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 1;
                                                                                                                                                              ADDRESSEE: Marshall, O'Toole, Gerstein, Murr STREET: 233 South Wacker Drive, 6300 Sear To CITY: Chicago STATE: Illinois COUNTRY: United States ZIP: 6060-6402 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1. CURRENT APPLICATION NATA: ASPLICATION NUMBER: US/08/286,889 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99.8%; Scor. 99.3%; Pred. No. o., 7; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/173,497
FILING DATE: 23-DEC-1993
ATTORNEY/AGENT INFORMATION:
NAME: Williams Jr., Joseph A.
REGISTRATION NUMBER: B38,659
REFERENCE/DOCKET NUMBER: 27866/32168
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                 Human
                                                           GENERAL INFORMATION:
APPLICANT: Gallatin, W. Mich
APPLICANT: Van der Vieren, Monica
ATILE OF INVENTION: No. 5470953e1
NUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
                         Sequence 3, Application US/08286889
Patent No. 5470953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 1153 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 99.3
Matches 1129; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   312-474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE:
TELEFAX: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-286-889-3
          US-08-286-889-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              796
                                                                                                                                                                                                                                                                                                                                                                              436
                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                  496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     556
                              136
                                                                180
                                                                                                  196
                                                                                                                                   240
                                                                                                                                                                   256
                                                                                                                                                                                                     TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                         TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 316
                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NFEALKTIQNQLREKI FAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QLELPVKYAVYMVVTSHÇVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSQTET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDFVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                              PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
              FPEALRGCPQEDSDIAFLYDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                  137 FPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMBQLKKSKTLFSLMQYSEEF
                                                                                                                                 RIHFTFKEFQNNPNPRSLİKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                     GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMPR
                                                                                                                                                                                                                                                                                                                                                                                                                ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                PRGORARWOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1037
                                                                                                                                                                   197
                                                                                                                                                                                                                                       257
                                                                                                                                                                                                                                                                                                          317
                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                              377
                                                                                                                                                                                                                                                                                                                                                                                                                                                  437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             961
                                                                121
                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
61
                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                421
```

g

g

g

ઠે

ò

g

g ò

ò

g

ò

ò

g ò g ò 8

240

256

300 316

180 196

120 136

9 96

Gaps

```
61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCPLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               137 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKGKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301 NFEALKTIQNOLREKIFAIEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         77 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ONTGMWESNAMVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 FNLDTENAMTFQENARGFGOSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 1;
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.
CURRENT APPLICATION DATA:
PPPLICATION NUMBER: US/08/485,618
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99.8%; Score 5862; Di
99.3%; Pred. No. 0;
iive 7; Mismatches
                                                                                   CLASSIFICATION: 435
CLASSIFICATION: 435
PRIOR APPLICATION UNDER: 0.80/173,497
PRIOR APPLICATION NUMBER: 18.08/173,497
FILING DATE: 23-DEC-193
APPLICATION UNDER: US 08/286,889
FILING DATE: 5-AUG-1994
PRIOR APPLICATION UNDER: US 08/36,652
FILING DATE: 21-DEC-1994
ATTORNEY/AGENT INFORMATION:
NAME: Williams Ur., Joseph A.
RECISTRATION NUMBER: 38,659
REFERENCE/DOCKET NUMBER: 38,659
TELECHNOWINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
TELECHNOMINICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                         27866/32797
                                                                                                                                                                                                                                                                                                                                                                                           TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
ENGTH: 1153 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 99.8
Matches 1129; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-485-618-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCORIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              977 RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF 556
                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                          9/9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960
                                                                                                            PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                   SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1097 KVEPFEVPNPLPLIVGSSYGGLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                           377 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                        QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                              PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 3, Application US/08485618
Patent No. 5728533
GENERAL INFORMATION: W. Michael
APPLICANT: Gallatin, W. Michael
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. 5728533el Human 2 Integrin Alpha Subunit
NUMBER OF SEQUENCES: 103
CORRESPONDENCES: ADDRESS: ADDRESSE: Marshall, O'Toole, Gerstein, Murray & Borun.
STREET: 233 South Wacker Drive, 6300 Sear Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: Chicago
STATE: Illinois
COUNTRY: United States
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMFUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-485-618-3
                                                                                                                                                                                               497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1081
                                                                                                                                                                                                                                                                                                                                          617
                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      737
                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                           8 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                            ద
                                                                                        ò
                                                                                                                                                     8
                                                                                                                                                                                    g
                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                       a
```

300

360

420

136 180 196

60 16

ö

Length 1153; Indels 480

ö

9 16 120 136 180 196 240 256

1

```
TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GPREFNYTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       617 PVLRVKAIMEFUPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       137 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNC1EDPVSP1VLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSP1VLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PVLRVKA IMEFNPREVARNVFECNDOVVKGKEAGEVRVCLHVOKSTRDRLREGOIOSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                              FPEALRGCPQEDSDIAFLVDGSGS11PHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RIHFTFKEFONNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                            FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                          FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                               DB 1; Length 1153;
                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                             1;
                                                                                                                                                                                                                                           ; Score 5862; DB
; Pred. No. 0;
7; Mismatches
             REFERENCE/DOCKET NUMBER: 2780
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-474-6300
TELEFAX: 312-474-6448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS:
LENGTH: 1153 amino acids
 38,659
                                                                                                                                                                                                                                             Query Match
Best Local Similarity 99.3%;
Matches 1129; Conservative
                                                                                                                                                             STRANDEDNESS: single
REGISTRATION NUMBER:
                                                                                                                                                                                             MOLECULE TYPE: protein
                                                                                                                                                amino acid
                                                                                                                                                                                linear
                                                                                                                                                                                TOPOLOGY:
                                                                                                                                                                                                    ; MOLECULE T
US-08-362-652-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . 449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                             -
                                                                                                                                                                                                                                                                                                                                             11
                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RINQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSQTET 1096
                                                                                                                                                                                                                                                                                                                                                                                                                                              RINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                  616
                                                                                 676
                                                                                                                 720
                                                                                                                                                 736
                                                                                                                                                                                780
                                                                                                                                                                                                  SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 796
                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                               856
                                                                                                                                                                                                                                                                                                             SGALKSTSCSINHPIFPÄNSEVTFNITFDVDSKASLCNKLILKANVTSENNMPRTNKTEF 900
                                                                                                                                                                                                                                                                                                                                             916
                                                                                                                                                                                                                                                                                                                                                                              QLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960
                                                                                                                                                                                                                                                                                                                                                                                               KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: Gallatin, W. Michael
APPLICANT: Gallatin, W. Michael
APPLICANT: Van der Vieren, Monica
ITTLE OF INVENTION:
NUMBER OF SEQUENCES: 93
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
STREET: 233 South Wacker Drive, 6300 Sear Tower
CITY: Chicago
STATE: Illinois
COUNTRY: United States
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PALEMENT RELABSE FORM:
SOFTWARE: PALEMENT RELABSE FORM:
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PALEMENT RELABSE #1.0, Version #1.25
                                                                                                                                                                                                                                                GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                 PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                   YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                  SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
 CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/173,497
FILING DATE: 23-DEC-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/286,889
FILING DATE: 5-AUG-1994
ATTORNEY/AGBNT INFORMATION:
NAME: Williams Jr., Joseph A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/362,652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 3, Application US/08362652
Patent No. 5766850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
                                                                                                                   661
                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1097
                                                                                                                                                                                                                  737
                                                                                                                                                                                                                                                                                797
                                                                                                                                                                                                                                                                                                                                             857
                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                              917
                                                                                                                                                                                                                                                                                                                                                                                                                                              961
                                                                                                                                                                                 721
                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                             g
                                                                                                                 ŝ
                                                                                                                                              g
                                                                                                                                                                                ò
                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

540 556 900 616 99 919 720 736

376 420 436 480 496 780

796

<u>.</u>

```
17
                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                    197
                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                             377
                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                               437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  196
                                                                    ઠ
                                                                                           셤
                                                                                                                    ઠે
                                                                                                                                         셤
                                                                                                                                                                       ð
                                                                                                                                                                                           a
                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             જે
                                                                                                                               RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                              1037 FFGIQEBENATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1096
                                                                                                                                                                                   FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                      916
                                                                            QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960
                                                                                           856
                                                                                                                                                                                                                                     KVEPPEVPNPLPLIVGSSŸGGLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                KVEPFEVPNPLPLIVGSSYGGLLILALITAALYKLGFFKRQYKDMYSEGGPPGAEPQ 1153
GPREFNVTVTVRNDGEDSÝRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                          SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                           SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                  Subunit
                                                                                                                                                                                                                                                                                                                                                                                               Human 2 Integrin Alpha
                                                                                                                                                                                                                                                                                                                            Sequence 3, Application US/08605672
Patent No. 5817515
GENERAL INFORMATION:
APPLICANT: Gan der Vieren, Monica
TITLE OF INVENTION: No. 5817515el Human 2 Integri
NUMBER OF SEQUENCES: 103
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Muzray 6
STREET: 233 South Wacker Drive, 6300 Sear Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CAURENT APPLICATION DATA:
APPLICATION NUMBER: US/08/605,672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 08/173,497
FILING DATE: 23-DEC-1993
RICOR APPLICATION DATA:
APPLICATION NUMBER: US 08/286,889
FILING DATE: 5-AUG-1994
RICOR APPLICATION DATA:
APPLICATION NUMBER: US 08/362,652
RICORNEY,AGENT INPORMATION:
NAME: Williams Jr., JOSEPA A
REGISTRATION NUMBER: 38,659
REGISTRATION NUMBER: 38,659
REGISTRATION NUMBER: 38,659
REGISTRATION NUMBER: 38,659
REGISTRATION NUMBER: 38,659
TELECOMUNICATION INFORMATION:
TELECOMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 1153 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Chicago
STATE: Illinois
COUNTRY: United States
ZIP: 60606-6402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEX: 25-3856
INFORMÁTION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     312-474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: 530
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX:
                                                                                                                                                                                                                                                                                                                  US-08-605-672-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-605-672-3
797
                                                     857
                                                                                                                                                           716
                                                                                                                                                                                    1021
                                                                                                                                                                                                                                     1081
                                                                             901
                                                                                                                                 961
                                                                                                유
                                                                                                                                                       셤
                                                                                                                                                                                                      g
                         ò
                                                  셤
                                                                            ò
                                                                                                                              ò
                                                                                                                                                                                  ò
                                                                                                                                                                                                                                    ò
```

```
1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 976
                                                                                                                                 120
                                                                                                                                                  240
                                                                                                                                                                                                                                                                                             256
                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                             376
                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                               180
                                                                                                                                                                                                                               196
                                                                                                                                                                                                                                                                                                                                                             316
                                                                                               96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                          QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLP1SLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                  FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                            TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                              TOGEKFGDPLGYEDVI PEADREGVI RYVI GVGDAFRSEKSRQELNTI ASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                           GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGOVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLP1SLVFLVPV
                                                                                                                               RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                               FPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                    Gaps
                                                                   FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                    ö
   Length 1153;
                                   Indels
                                   1;
   5;
   DB
Score 5862; DB Pred. No. 0; 7; Mismatches
Query Match
Best Local Similarity 99.3%;
Matches 1129; Conservative
                                                                                                                               61
                                                                                                                                                                                               121
                                                                                                                                                                                                                             137
                                                                                                                                                                                                                                                                                                                                                           257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   737
```

	10 NFEALKTIONQLREKIFALECTOTGSSSSFEHEMSQEGFSAATTSNGPLLSTVGSYDWAG 36 1 NFEALKTIONQLREKIFALECTOTGSSSSFEHEMSQEGFSAATTSNGPLLSTVGSYDWAG 36 1 NFEALKTIONQLREKIFALEGTQTGSSSSFEHEMSQEGFSAATTSNGPLLSTVGSYDWAG 37 6 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAATILRNRVQSLVLGAPRYQHIGLVAMFR 42 1	421 QNTGMMESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGOVSVCPL 4 437 QNTGMMESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGOVSVCPL 4 437 QNTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGOVSVCPL 4 481 PRGQRARWQCDAVLYGEQGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF 5 497 PRGQRARWQCDAVLYGEQGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF 5 497 PRGQRARWQCDAVLYGEQGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF 5	541 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 60	72 73 78 79		QRIQCDIP 10 QRIQCDIP 10 QRIQCDIP 10 FVRSQTET 10	Oy 1081 KVEPFEVDNPLPLIVGSSVGGLLLALITAALYKLGFFKROYKDMMSEGGPPGAEPQ 1137  Db 1097 KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKROYKDMMSEGGPPGAEPQ 1153  RESULT 7  US-08-943-363-3  ; Sequence 3, Application US/08943363  ; Patent No. 5837478  ; GENERAL INFORMATION:
OY 1021 FFGIQEEFNATLKCNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQCAFVRSQTET 1080  1037 FFGIQEEFNATLKCNLSFPWXIKTSHNHLLIVSTAEILFNDSVFTLLPGQCAFVRSQTET 1096  OY 1081 KVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137  DD 1097 KVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1153	NESULT 6 US-08-482-293A-3 Sequence 3, Application US/08482293A Sequence 3. Application US/08482293A Sequence 3. Application US/08482293A GENERAL INFORMATION: APPLICANT: Gallatin, W. Michael APPLICANT: Van der Vieren, Monica TITLE OF INVENTION: No. 5831029el Human 2 Integrin Alpha Subunit	NUMBER OF SEQUENCES: 103 CORRESPONDENCE ADDRESS: ADDRESSE: Marshall, O'Toole, Gerstein, Murray & Borun STREET: 233 South Wacker Drive, 6300 Sear Tower CITY: Chicago STATE: 111inois COUNTRY: United States	COMPUTER: Floppy disk  REDIUM TYPE: Floppy disk  COMPUTER: IBM PC compatible  COMPUTER: IBM PC compatible  COMPUTER: STATEM: PC-DOS/MS-DOS  SOFTWARE: Patentin Release #1.0, Version #1.25  CURRENT APPLICATION DATA:  APPLICATION NUMBER: US/08/482,293A  FLING DATE:  CLASSIFICATION: 530	PRIOR APPLICATION DATA: APPLICATION NUMBER: US 08/173,497 FILING DATE: 23-DEC-1993 PRIOR APPLICATION DATA: APPLICATION NUMBER: US 08/286,889 FILING DATE: 5-AUG-1994 PRIOR APPLICATION DATA: APPLICATION NUMBER: US 08/362,652	FILING DATE: 21-DEC-1994  ATTORNEY/AGENT INFORMATION:  NAME: Williams Jr., Joseph A.  REGISTRATION NUMBER: 38,659  REFERENCE/DOCKET NUMBER: 27866/32684  TELECOMMUNICATION INFORMATION:  TELEFAX: 312-474-6300  TELEFAX: 312-474-6300  TELEFAX: 25-3866  INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS:	ino acide dingle otein 99.8%; Score 5862; DB 2; Length 1153; 99.3%; Pred. No. 0;	2

```
RINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960
                                                                                                    480
                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         916
                                                                                                                                        496
                                                                                                                                                                                                                   556
                                                                                                                                                                                                                                                                                               919
                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                      736
                                                                                                                                                                                                                                                                                                                                                                         676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              677 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                797 GPREFNVIVIVIVRNDGEDSYRIQVIFFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         857 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   917 QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1037 FFGIOEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGOGAFVRSOTET
                                                                                                                                                                                                                                                                                                                                                       841 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901 QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                377 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                          437 QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                              PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLP
                                                                                                                                                                                                  PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                           HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                               557 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTWDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                          361 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                   PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                               YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                    QNTGMMESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent No. 6251395
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Gallatin, Michael W.
TITLE OF INVENTION:
ILLE REPERENCE: 27866/35004
CURRENT FILING DATE: 1998-11-16
EARLIER FILING DATE: 1998-11-16
EARLIER APPLICATION NUMBER: 08/173,497
EARLIER APPLICATION NUMBER: 08/173,497
EARLIER APPLICATION NUMBER: 08/26,889
EARLIER APPLICATION NUMBER: 08/26,889
EARLIER APPLICATION NUMBER: 08/362,652
EARLIER FILING DATE: 1994-08-05
EARLIER FILING DATE: 1994-12-21
EARLIER FILING DATE: 1994-12-21
EARLIER FILING DATE: 1997-10-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 8
US-09-193-043-3
                                                                                                                                                                                                                   497
                                                                                                                                                                                                                                                                                                                                                                         617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1097
                                                                                                                                                                                                                                                                                                                                       601
                                                                                                    421
                                                                                                                                                                              481
                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                    ሯ
                                                                                                                                    g
                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RIQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NFEALKTIQNQLREKIFAİEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TDGEKFGDPLGYEDVI PEADREGVI RYVI GVGDAFRSEKSRQELNTI ASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RLQVPVEAVNMSLGLSLAÅTTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RIHFTFKEFQNNPNPRSLİKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                            2 Integrin Alpha Subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ..
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1153;
                                                                                                  3: Marshall, O'Toole, Gerstein, Murray & Borun
233 South Wacker Drive, 6300 Sear Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Indels
                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/943,363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7; Mismatches
                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION: 530
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 08/173,497
FILING DATE: 23-DEC-1993
PRIOR APPLICATION DATA:
PAPLICATION NUMBER: US 08/286,889
FILING DATE: 5-AUG-1994
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
RAPLICATION NUMBER: US 08/362,652
FILING DATE: 21-DEC-1994
ATTORNEY/AGENT INFORMATION:
NAME: Williams Jr., OSGEDA A.
REGISTRATION NUMBER: 38,659
REFERENCE/DOCKET NUMBER: 27866/3264
APPLICANT: Gallatin, W. Michael
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. 5837478el Human
NUMBER OF SEQUENCES: 114
CARRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein,
STREET: 233 South Wacker Drive, 6300 Se
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 5862;
Pred. No. 0;
                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-474-6300
                                                                                                                                  CITY: Chicago
STATE: Illinois
COUNTRY: United States
ZIP: G0606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 1153 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         312-474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; MOLECULE TYPE: protein US-08-943-363-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 1129; Conservat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
```

Q ò 셤 엄

ò g ò

ò

g

ठ

1096

1020 1036

916

```
NFEALKTIONOLREKIFALEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                    KVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQOPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                    4
                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>D</u>B
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 5862; DB
Pred. No. 0;
7; Mismatches
                                                                                                                                                                                                                      Human Beta-2
                                                                                                                                                                   US-09-688-3074-3
Sequence 3, Application US/09688307A
Patent No. 6432404
GENERAL INFORMATION:
APPLICANT: Gallatin, Michael W.
APPLICANT: Van der Vieren, Monica
ITILE OF INVENTION: No. 6432404el Human Beta-2
FILE REFERENCE: 27866/3646
CURRENT APPLICATION NUMBER: US/09/689,307A
CURRENT PILING DATE: 2000-10-13
PRIOR APPLICATION NUMBER: 09/193,043
PRIOR FILING DATE: 1998-11-16
PRIOR APPLICATION NUMBER: 08/605,672
PRIOR APPLICATION NUMBER: 08/605,672
PRIOR APPLICATION NUMBER: 08/86,889
PRIOR FILING DATE: 1993-12-23
PRIOR FILING DATE: 1994-08-05
PRIOR FILING DATE: 1994-12-21
PRIOR APPLICATION NUMBER: 08/362,652
PRIOR FILING DATE: 1994-12-21
PRIOR FILING DATE: 1994-12-21
PRIOR FILING DATE: 1994-10-03
PRIOR FILING DATE: 1994-10-03
PRIOR FILING DATE: 1994-10-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   99.8%;
                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Patentin Ver. 2.0 SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                        sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                       Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Simi
Matches 1129;
                                                                                                                                                                                                                                                                                                                                                                                                                             ; OKCANISM: DO
US-09-688-307A-3
                                                                                                                                                               -09-688-307A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                               196
                                                 211
                                                                    1021
                                                                                    1037
                                                                                                        1081
                                                                                                                           1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                             셤
                                                                   ઠ
                                                                                 셤
                                                                                                  ઠ
                                                                                                                      용
                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        900
                                                                                                ö
                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                             376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                  436
                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                      496
                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                            556
                                                                                                                                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          736
                                                                                                                                                       120
                                                                                                                                                                                            180
                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                   256
                                                                                                                                                                                                                                                                                         316
                                                                                                                                                                         136
                                                                                                                                    16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QLELPVKYAVYMVVTSHĠVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                     NFEALKTIQNOLREKIFAIGGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                          ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                          PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                    HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                               FNLDTENAMTFOENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                 RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGIRKVVRELFNITNGARKNAFKILLILI
                                                                                                                   FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                  Gaps
                                                                                                  ö
                                                                             Length 1153;
                                                                                                 Indels
                                                                                                 ;
                                                                               08
                                                                              Score 5862; DB
Pred. No. 0;
7; Mismatches
                                                                              Query Match
Best Local Similarity 99.3%;
Matches 1129; Conservative
     NUMBER OF SEQ ID NOS: 114
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 3
                                          TYPE: PRT
ORGANISM: Homo sapiens
US-09-193-043-3
                                  LENGTH: 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                              497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                     7
                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                               317
                                                                                                                                                                                                                                                                                                                                                                    377
                                                                                                                                                                                                                                                                                                                                                                                                        437
                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                       17
                                                                                                                                                          61
                                                                                                                                                                           17
                                                                                                                                                                                                                137
                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                     197
                                                                                                                                                                                                                                                                                           257
                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          염
                                                                                                                                                                                                                                                                                                                                             6 G
                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                          8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                     셤
                                                                                                                                                                                                             유
                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                염
                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                         ò
                                                                                                                                                                                            ò
```

ö

Gaps

9 96

```
TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                             LENGTH: 1152 amino aci
                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 1126; Conservative
                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: protein FRAGMENT TYPE: internal
                                                                                                                                                                                                                                                                                                                          amino acid
                                                                                                                                                                                                                                                                                                                                                                          US-08-476-062A-43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 497
                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          977 RLNGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1037 FFGIQEEFNATLKGNISRDMYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSQTET 1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RLNOTVIWDRPQVIFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                  616
                                                                                                                                                                                                                          99
                                                                                                                                                                                                                                                  9/9
                                                                                                                                                                                                                                                                          720
                                                                                                                                                                                                                                                                                                                                                                            840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             960
                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                  736
                                                                                                                                                                                                                                                                                                                                                   796
                                                                                                                                                                                                                                                                                                                                                                                                    856
                                                                                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                                                                                    916
                                                                        480
                                                                                               496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKROYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1097 KVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QNTGMMESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                            GPREFNVTVTVRNDGEDSYRTQVTFFFDLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
317 NFEALKTIONOLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                         GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                         PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                     PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                      PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                      PULRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                          YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                      SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                          SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                          GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                            SCALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                           857 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                         HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 10
US-08-476-062A-43
US-08-476-062A-43
Squence 43, Application US/08476062A
Patent No. 5877275
GENERAL INFORMATION:
TITLE OF INVENTION:
TITLE OF INVENTION:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
STREET: 225 Franklin Street
CITY: Boston
STATE: MA
COUNTRY: US
COUNTRY: US
ZIP: 02110-2804
COUNTRY: US
ZIP: 02110-2804
COUNTRY: US
ZIP: Diskette
                                                                                                                                                                                                                                               617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1081
                                               377
                                                                                                                                                 497
                                                                                                                                                                                                  557
                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                    797
                        361
                                                                        421
                                                                                               437
                                                                                                                         481
                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                           g
                                                                                                                     ò
                                                                                                                                          임
                                                                                                                                                                 8
                                                                                                                                                                                          셤
                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                        9
9
                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
```

```
HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NFEALKTI QNQLREKI FALEGTQTGSSSSFEHEMSQEGFSAALTSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       77 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1152;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Э;
Э
COMPUTER: IBM Compatible
OPERATING SYSTEM: Windows95
SOFTWARE: FastSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/476,062A
FILING DATE: 07-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/216,081
FILING DATE: 21-MAR-1994
APPLICATION NUMBER: 07/539,842
FILING DATE: 04-JAN-1991
APPLICATION NUMBER: 07/539,842
FILING DATE: 18-JUN-1990
APPLICATION NUMBER: 07/212,573
FILING DATE: 28-JUN-1996
APPLICATION NUMBER: 07/212,573
FILING DATE: 28-JUN-1988
ATTORNEY AGENT INPORMATION:
NAME: Freeman, JOHN W
REGISTRATION NUMBER: 29,066
REPERENCE/DOCKET NUMBER: 29,066
REPERENCE/DOCKET NUMBER: 29,066
TELEPHONE: 617/542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity 99.2%; Score 5831.5; Similarity 99.0%; Pred. No. 0; 26; Conservative 7; Mismatches
```

120 136 180

9 96 240 256 300

196

```
Best Local Similarity 99.0
Matches 1126; Conservative
TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                           amino acid
                                                 STRANDEDNESS:

; TOPOLOGY: 11

PCT-US96-01314-43
                                 LENGIH:
                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                           317
                                                                                                                                                                                                                                                                                                                                                                                                    377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                            437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                         61
                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                   Н
                                                                                                                                                       11
                                                                                                                                                                                                                  121
                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                  8 8
                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                       요
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                    ઠ
                                                                                                                                                     ద
                                                                                                                                                                         ò
                                                                                                                                                                                           용
                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                1020
                                                                                                                                                                                                                                                                                                                      FFGIQEEFNATLKGNLSPDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                        960
                                                                                                                                                                                                                                                            975
                                                                                                                                                        840
                                                                                                                                                                            855
                                                                                                                                                                                                                    915
                                                                                                                SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 780
                                                                                                                                     795
              615
                                  999
                                                     675
                                                                          720
                                                                                              735
                                                                                                                                                                                                                                                                                                                                                            GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                        QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                  PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                           YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                     IDENTIFYING INTEGRIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
MEDIUM SYSTEM: MS-DGS (Version 5.1)
MARE: WordPerfect (Version 5.1)
MARE: 30-JAN-96
MING APPLICATION NUMBER: 08/380,167
FILING DATE: 30-JAN-95
ATTORNEY/AGENT INFORMATION:
MAME: John W. Freeman REGISTRATION NUMBER: 29.066
REFERENCE/DOCKET NUMBER: 29.066
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEFAX: (617) 542-5906
                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 43, Application PC/TUS9601314
GENERAL INFORMATION:
APPLICANT: M. Amin Arnaout
TITLE OF INVENTION: METHODS FOR IDENTI-
TITLE OF INVENTION: ANTAGONISTS
NUMBER OF SEQUENCES: 78
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: 225 Franklin S
CITY: Boston
STATE: Massachusetts
COUNTRY: U.S.A.
ZIP: 02110-2804
                                                                                                                                                                                                                                                                                                                                                                                                                             PCT-US96-01314-43
                                                                                                                                                                                                                                                                                                                          1021
                                                                                                                                                                                                                                                                                                                                              1036
                                                                             661
                                                         919
                                                                                                                   721
                                                                                                                                       736
                                                                                                                                                           781
                                                                                                                                                                              964
                                                                                                                                                                                                   841
                                                                                                                                                                                                                      856
                                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                              916
                                                                                                                                                                                                                                                                                  961
                                                                                                                                                                                                                                                                                                     916
                                     601
                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                              8
                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                              g
                                                                                                                                   셤
                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                          ò
                                     ò
                                                      a
                                                                            ò
                                                                                                                   ò
                                                                                                                                                          ò
```

```
840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 735
                                                                                                                                                                                                                                                                                                                                                           316
                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                        376
                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                       436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     555
                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                      120
                                                                                                                                                                                                            136
                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                            196
                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                           256
                                                                                                                                         9
                                                                                                                                                             16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TDGEKFGDPLGYEDVI PEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                               NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                              PULRUKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                  GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ONTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                      RLQVPVEAVMWSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                    PPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                  RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGIRKVVRELFNITNGARKNAFKILLLI
                                                                                                                                                         FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQBIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                 Gaps
                                                                                                                                         FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                 ;;
                                                                                           Length
                                                                                                                 Indele
                                                                                            .
.
                                                                                                                 3,
                                                                                           08
                                                                                           99.2%; Score 5831.5; 99.0%; Pred. No. 0; ive 7; Mismatches
43:
```

셤

g

ठे

ò

셤

ò

```
1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RINGTVIMDRPQVIFSENLSSICHTKERLPSHSDFLAELEKKAPVVNCSIAVCORIQCDIP 1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   961 RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                   615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        915
                                               9
                                                                                                                                                                              675
                                                                                                                                                                                                                                                                         735
                                                                                                                                                                                                                                                                                                                                                                  795
                                                                                                                                                                                                                                                                                                                                                                                                                                                             855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1081 KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1096 KVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKDMASEGGPPGAEPQ 1152
                                                                                                                                                                                                                            YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                               SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
PRG-RARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                          PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                      676 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                       SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                               GPREFNUTUTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNORSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                         SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                           HCTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
US-08-476-062A-44

i Sequence 44, Application US/08476062A

i Sequence 44. Application US/08476062A

i Sequence 44. Application US/08476062A

i Sequence 44. Application US/08476062A

i GENERAL INFORMATION:

APPLICANT Arnaout M. Amin

APPLICANT Arnaout M. Amin

TITLE OF INVENTION: RESPONSES WITH BETA2 INTEGRINS

NUMBER OF SEQUENCES: 53

CORRESPONDENCE FISH & Richardson P.C.

STREET: 225 Franklin Street

CITY: Boston

STATE: MA

COMPUTER: Diskette

COMPUTER: Diskette

COMPUTER: IDH COMPATIBLE

COMPUTER: STATE: MA

SOFTWARE: MA

COMPUTER: STATE: MA

COMPUTER: SATEM: Windows95

SOFTWARE: FISH COMPATIBLE

COMPUTER: STATE: MA

COMPUTER: STATE: MA

SOFTWARE: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

COMPUTER: STATE: MA

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/476,062
FILING DATE: 07-JUN-1995
PHIOR APPLICATION DATA:
APPLICATION NUMBER: 08/216,081
FILING DATE: 21-MAR-1994
APPLICATION NUMBER: 07/637,830
FILING DATE: 04-JNN-1991
APPLICATION NUMBER: 07/539,842
                                                                                                                                                                                 919
                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                  736
                                                                                                                                                                                                                                                                                                                                                                                                                                                             964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1021
                                             541
                                                                                        556
                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  916
                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                           δ
                                                                              g
                                                                                                                                 8
                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       음
                                                                                                              FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               136
  960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        257 TDGEKFGDPLGYEDVIPHADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    76
                                                                                                                                                                                                                                                                       KVEPPEVPNPLPLIVGS$VGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                       QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSPPISLVFLVPV
                                                                                        RLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RLQVPVEAVNMSLGLSLATATSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FPEALRGCPQEDSDIAFUVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         137 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILVVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TDGEKFGDPLGYEDVI PRADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NFEALKTI ONOLREKI FAIEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   317 NFEALKTIQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QNTGMMESNANVKGTQ1CAYFCASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FNLDTENAMTFQENAKGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RIHFTFKEFQNNPNPRSUTKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1152;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CR3a/b HETERODIMERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 5831.5;
Pred. No. 0;
7; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: ARNAOUT, M. AMIN
TITLE OF INVENTION: HUMAN CR3a/b HETEI
NUMBER OF SEQUENCES: 12
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/78,871
FILING DATE: 16-UUN-1993
APPLICATION NUMBER: 539,842
FILING DATE: 18-UN-1990
APPLICATION NUMBER: 212,573
FILING DATE: 28-UUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 99.0%;
Matches 1126; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; LENGTH: 1152
5424399-2
                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Patent No. 5424399
                                           916
                                                                                                                                   916
                                                                                                                                                                              1021
                                                                                                                                                                                                                            1036
                                                                                                                                                                                                                                                                         1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            437
                                                                                                                                                                                                                                                                                                                    1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO:2
```

ò 셤 셤

ઠે

Q

ò

g

õ

셤

ò

g

ò

\$ B

ò g

```
737 TLVGKPLLAFRNLRPMLAALAQRYFTASLPFEKNCGADHICQDNLGISFSFPGLKSLLVG
                                               GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                        VRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PPFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                         SGALKSTSCSINHP1FPENSEVTFN1TFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                1095 TVLEKYKVHNPTPLIVGSSIGGLLLALITAVLYKVGPFKRQYKEMMEE 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: M. Amin Arnaout
TITLE OF INVENTION: METHODS FOR IDENTIFYING INTEGRIN
TITLE OF INVENTION: METHODS FOR IDENTIFYING INTEGRIN
NUMBER OF SEQUENCES: 78
CORRESPONDENCE ADDRESS: A
ADDRESSES: Fish & Richardson P.C.
STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 59.0%; Score 3469; DB 5; Best Local Similarity 61.0%; Pred. No. 7.1e-284; Matches 689; Conservative 141; Mismatches 293;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 Diskette, 1.44 Mb
COMPUTER: 18M PS/2 Model 502 or 55SX
OPERATING SYSTEM: MS-DOS (Version 5.0)
SOFTWARE: WordPerfect (Version 5.1)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US96/01314
FILING DATE: 30-JAN-96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER: 29,066
REFERENCE/DOCKET NUMBER: 00786/267001
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 44, Application PC/TUS9601314
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 30-JAN-96
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/380,167
FILING DATE: 30-JAN-95
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: (617) 542-5070
TELEFAX: (617) 542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              John W. Freeman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: 225 F1
CITY: Boston
STATE: Massacl
COUNTRY: U.S.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PCT-US96-01314-44
                                                                                                                                                         841
                                                                                                                                                                                                              855
                                                                                                                                                                                                                                                                                                                     915
                                                                                                                                                                                                                                                                                                                                                                          096
                                                                                                                                                                                                                                                                901
                                                                                                                                                   ò
                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 日
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                  ò
                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TDGKKEGDSLDYKDVIPMADAAGIIRYAIGVGLAFQNRNSWKELNDIASKPSQEHIFKVE 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | || || GAFLYPPNMSPTINMSQENVDMRDSYLGYSTELALWKGVQSLVLGAPRYQHTGKAVIFT 437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 FPEALRGCPQEDSDIAFUVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TDGEKFGDPLGYEDVIPRADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NFEALKTIONOLREKIFAIEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20 FNLDTEELTAFRVDSAGFGDSVVQYANSWVVGAPQKITAANQTGGLYQCGYSTGACEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601 PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RIHFTFKEFONNPNPRSLIKPITOLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               : ||||:||: || |||: || |||: |||||: || ||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: ||||: |||: |||: |||: |||: |||: |||: |||: |||: |||: |||: |||: |||: |||: |||: |||: |||: |||: |||: |||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRGORARWOCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13.0%; Score 3469; DB 2; Score 3469; DB 2; Serity 61.0%; Pred. No. 7.1e-284; Conservative 141; Mismatches 293;
                                                                                                       NAME: Freeman, John W.
REGISTRATION NUMBER: 29,066
REFERENCE/DOCKET NUMBER: 00786/068003
TELECOMMUNICATION INFORMATION:
TELEPAX: 617/542-5070
TELEFAX: 617/542-8906
TELEFAX: 200154
TELERAX: 200154
TELERAX: 617/542-806
TELERAX: 617/542-806
TELERAX: 617/542-806
TELERAX: 617/542-806
TELERAX: 617/542-806
TELERAX: 617/542-806
                         APPLICATION NUMBER: 07/212,573
FILING DATE: 28-JUN-1988
ATTORNEY/AGENT INFORMATION:
     18-JUN-1990
                                                                                                                                                                                                                                                                                                                                                 LENGTH: 1163 amino acids TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                             MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 689; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-476-062A-44
                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

Alpha

~

a

g

ò

셤 ò q õ

ò

Q

∂

ò

8 8 6 8

8 6 8

8 6

ठे qq 상 음

상 점

ò 6 8 g ò a ે

```
1095 TVLEKYKVHNPTPLIVGSSIGGLLLLALITAVLYKVGFFKRQYKEMMEE
                                                                                                                                                                                                                                                                                                                                                                                                                          Version #1.25
                                                                                                                                                                                                                                      ADDRESSEE: Marehall, O'Toole, Gerstein, STREET: 233 % Wacker Drive, 6300 Sears CITY: Chicago STATE: Illinois
                                                                                                                                                                                     Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27866/31363
                                                                                                                                                                                                                                                                                                                                 ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ve;
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/173,497
                                                                                                                                               APPLICANT: Gallatin, w. Michael
APPLICANT: Van Der Vieren, Monica
TITLE OF INVENTION: No. 5437958el Hu
TITLE OF INVENTION: Submit
NUMBER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: No. 5437958and, Greta E. REGISTRATION NUMBER: 35,302
                                                                                                   US/08173497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER: 2
TELECOMMUNICATION INFORMATION
TELEPHONE: 312-474-6300
TELEFAX: 312-474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1163 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: protein
                                                                                                 ; Sequence 4, Application
; Patent No. 5437958
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: linear
MOLECULE TYPE: prof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 686; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX:
TELEX: 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-173-497-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         960 VRINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  677 LDLALDPGRLSPRATFQETKNRSLSRVRVLGLKKAHCENFNLLLPSCVEDSVTPITLRLNF 736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                  120
                                                                                     80 GLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR 137
                                                                                                                                    180
                                                                                                                                                                  197
                                                                                                                                                                                                                                                                                                                                                          GVFLYTSKEKSTFINMTRYDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                                                                                                                                                                                                                                                                                                                                                                                                                          ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          959
                                                                                                                                                                                                                                     257
                                                                                                                                                                                                                                                                    TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTVASKPPRDHVFQIN 300
 9
                           79
                                                                                                                                                      138 LPVSRQECPRQEQDIVFLIDGSGSISSRNPATWMNFVRAVISOFQRPSTOFSLMOFSNKF
                                                                                                                                                                                                                                                                                         NFEALKTIONOLREKI PAIEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HGTSGSGISPSHSQRIAG$KLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SQGTWSTSCRINHLIFRGGAQITFLATFDVSPKAVLGDRLLLTANVSSENNTPRTSKTTF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        901 QLELPVKYAVYMVYTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           915 QLELPVKYAVYTVVSSHEQFTKYLNFSESEEKESHVAMHRYQVNNLGQRDLPVSINFWVP
                                                                                                                                                                                                                     PRGWR-RWWCDAVLYGEQGHPWGRFGAALTVLGDVNGDKLTDVV1GAPGEEENRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20 FNLDIEELTAFRVDSAGFGDSVVQYANSWVVVGAPQKITAANQTGGLYQCGYSTGACEPI
                                                                                                                                 FPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                   RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
PNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKROYKDMMSE 1128
                                                                RLQVPVEAVNMSLGLSLAA
                                                                                                                                                                                                                                                                                                       258
                                                                                                                                                                                                                                                                                                                                                                      318
                                                                                                                                                                                                                                     198
                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                        378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            975
                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
```

```
120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TDGKKEGDSLDYKDVIPMADAAGIIRYAIGVGLAFQNRNSWKELNDIASKPSQEHIFKVE 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSROELNTVASKPPRDHVFQIN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FNLDTEELTAFRVDSAGFGDSVVQYANSWVVVGAPQKIIAANQIGGLYQCGYSTGACEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      : ||||:||: || ||: : || |:||| |:||| ||: |||: |||: |||:|| |||:|| ||:|| |||:|| |||:|| |||:|| ||:|| ||:|| ||:|||:|| ||:|||:|| ||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:|||:||:|||:||:|||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||:||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NFBALKTIQNQLREKIFAIGGTQTGSSSSFBHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FPEALRGCPQEDSDIAFLVDGSGSIIPHDFRRAKEFISTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181 RIHFTFKEFQNNPNPRSLIKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILILI
                                                                                                                                                                                                                                                                                                                                         FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                             9
                Length 1163;
                                                                                                                                                                             Indels
58.6%; Score 3446; DB 1;
larity 60.8%; Pred. No. 6.2e-282;
Conservative 147; Mismatches 290;
```

```
960 VRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCORIQCDI 1019
                                                                                                                                                                                                                                                                                                         PFFGIQEEFNATLKGNUSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                    SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRINKTEF 900
                                                                                                                                                                                                                                                                     QLELPVKYAVYMVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP 959
                                                                                                                                                      SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 780
                                                                                                                                                                                          840
                                                                                                                                                                                                                      914
                                                                                                                                                                                                                                                                                   974
                                          480
                                                       497
                                                                     540
                                                                                                                           PVLRVKAIMEPNPREVARNVPECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT 660
                                                                                  556
                                                                                               HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600
                                                                                                        GPREFNUTUTVRNDGEDSYRIQVIFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                  DEDALKDIQNQLKEKIFALEGTETISSSSFELEMAQEGFSAVFTPDGPVLGAVGSFTWSG
             GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                      QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                  438 QVSRQWRMKAEVIGTQIĢSYFGAŞLCSVDVDTDGSTDLVLIGAPHYYEQIRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                       498
                                                                                                                557
                                                                                                                              601
                                                                                                   541
                                                                                                                                            617
                                                                                                                                                         661
                                                                                                                                                                      677
                                                                                                                                                                                     721
                                                                                                                                                                                                  737
                                                                                                                                                                                                                781
                                                                                                                                                                                                                              197
                                                                                                                                                                                                                                                                       901
                                            421
                361
                                                                       481
                                                                                                                                                                                                                                                                                                                           20 da 00 da
                                                                                                                                                                                                                           원 상 원
                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                음
상
음
                            6 6 6 6
               ò
```

Search completed: November 25, 2003, 14:23:21 Job time : 17:5618 secs

.

	Copyright	GenCore (c) 1993	core version 5.1.6 1993 - 2003 Compugen Ltd.		33 33 33 33 33 33 33 33 33 34 34 34 34 3		4 1039 4 1394 3 1137 3 1135		A34269 A29637 JC5950 I61186	int pos int alg	integrin alpha-2 position-specifi integrin alpha-7 alpha-7 integrir
OM protein - pro	protein search,	using	ng sw model		መ መ u	ത്ത്			B30892 A60163	] 917	leukocyte adhesi glycoprotein III
Run on:	November 25,	2003	, 14:12:29 ; Search time 14.9579 (without alignments) 7310.102 Million cell	9 Seconds updates/sec	, w w w .	9.7.7.			S44824 S60571 S28277	int int	incegin aipha F54F2.1 protein integrin alpha hypothetical pro
Title: Perfect score: Sequence:	US-09-902-481B-6 5875 1 FNLDTENAMTFQENAR	81B-6 ITFQENA	ARGFGQFKRQYKDMMSEGGPPGAEPQ	1137	4 4 4 4 0 11 5 6		34 76	2 1 4 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	T09403 T09433 T36916 T18523	ni ni 1907 1907 1907	integrin alpha c integrin alpha c glycoprotein Ilk integrin alpha c
Scoring table:	BLOSUM62 Gapop 10.0 ,	Gapex	ext 0.5		4 4 5 4	ທ່ທ່			136917 A55348	9.1y int	glycoprotein lik integrin alpha-1
Searched:	283308 seqs,	9616	8682 residues						ALIG	ALIGNMENTS	
Total number of	hits satisfy	sfying c	chosen parameters: 283308								
Minimum DB seg 1 Maximum DB seg 1	length: 0 length: 20000	000000000			RESULT 1 RWHU1B Cell Bur	face glycopr	otein (	2D11b	precurso	r [validated] - human	:
Post-processing:	Minimum Match Maximum Match Listing first	ch 0%	b) 00% 5 summaries		N, Altern eukocyte C, Specie C, Date:	ate names: c integrin al s: Homo sapi 31-Dec-1992	ompleme pha che ens (me	win; n win; n wn)	ceptor teutrophi	ype 3 alpha chain; leu l adherence receptor a l-Dec-1992 #text_chang	Nocyte adhes lipham chain re 31-Dec-2000
Database :	PIR 76:* 1: pir1:* 2: pir2:*				C; Access R; Corbi, J. Biol. A; Title:	lon: A31108; A.L.; Kishi Chem. 263, The human 1	A28919 moto, 7 12403-1 eukocyt	6; A41 [.K.; [2411,	600; A301 Miller, 3 1988 Lesion gly	Accession: Aill08; Az8915; A41600; A30892; A32218; A46526; A26091; I5256; R;Corbi, A.L.; Kishimoto, T.K., Miller, L.J.; Springer, T.A. U. Biol. Chem. 263., 12403-12411, 1988 A;Title: The human leukocyte adhesion glycoprotein Mac-1 (complement recepi	426091; 15256 plement recep
	: pir3				A;Refere	nce number:	A31108,	MUIL	:8831503	3; PMID:2457584	
Pred. No. score grea and is der	No. is the number greater than or e derived by analy	number of r n or equal analysis	esults predicted by chance to the score of the result but the total score distributi	a rinted,	A; Molecu A; Residu A; Cross-	le type: mRN es: 1-1153 < references:	A COR> GB:J03	925; N	ID:91872	A;Molecule type: mRNA A;Molecule type: mRNA A;Residues: 1-1153 <cor> A;Cross-references: GB:J03925; NID:g187284; PIDN:AAA59544.1; PID:g307148</cor>	31D:9307148
	مد		SUMMARIES		A;Note: R;Arnaou J. Cell	part of this t, M.A.; Gup Biol. 106. 2	sequer ta, S.F 153-213	. Pi (., Pi 58, 19	erce, M.188	med by protein sequenc W.; Tenen, D.G.	ging
Result No. Score	Query Match Length	DB	1D Description		A, Title: A, Refere	Amino acid	sequenc A28915	MUIL	the alph :8825721	ia subunit of human lev 5; PMID:2454931	skocyte adhes
:	6.2	- ~	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		A;Access A;Molecu A;Residu	lon: A28915 le type: mRN es: 1-499,50	A 1-965,	P', 96	7-1153 <	ARN>	
3 3483 4 1548.5	59.3 1163 26.4 1170	н 0	RWHUIC Cell surf		A;Cross- A;Note:	references: the authors	GB:M18( transl	ated t	B:J03270 he codon	), GB:M19664, GB:X07421 TAC for residue 1129	1; NID:g18693 as Thr
	1.9	0 0			A;Note: R;Shelle	part of this y, C.S.; Arn	sequer aout, l	7. A.	ncluding	the amino end of the	mature prote
_	8 6 6 6 8 6 7 6	00			Proc. Na A;Title:	tl. Acad. So The promote	r of th	A. BE	1, 10525- 1b gene	10529, 1991 directs myeloid-specif	fic and devel
n 0 r	2,2,0	0 00			A; Refere A; Access	ion: A41600	A41600	MOTE.	1:9207331	.8; FMIU:1683702	
- 01	. n c	7 70 9			A;Residu	es: 1-9 <she< td=""><td>_ ^ {</td><td>,</td><td>9</td><td></td><td></td></she<>	_ ^ {	,	9		
m •# i	8.7.	0 0		integrin alpha-4 c integrin alpha-9 c	A; Cross- R; Arnaou	references: t, M.A.; Rem	GB:M76 01d-0'I	724; N Jonnel	1, E., P.	118; PIDN:AAA58410.1; I	PID:9553215 P.; Tenen, D.
n w	ນ໌ ພັ	7 7			Proc. Na A;Title:	ci. Acad. So Molecular c	loning	of th	, 2//b-2 le alpha-	subunit of human and	guinea pig le
۲ B	۲.۲	0 0			A;Refere A;Access	nce number: ion: A30892	A94193	MUIL	:8819015	ii; PMID:2833753	
<b>0</b> 0	ni wi	0 0			A, Molecu A, Residu	le type: mRN es: 917-1042	A <ar2></ar2>				
	<u>.</u> را د	70			A;Cross-	references:	GB:M18(	744 M.T.	020	T. Baker D.M. Back	A 1. Roth
105	c	4 77 7			Proc. Na	tl. Acad. So	i. U.S.	.A. 86	257-26	11, 1989 himit of the hims so	, n.u., nocii,
	999	777	.,,,	integrin alpha-3 c integrin alpha-3 c	A;Refere	nce number:	A32218	, MUII	8900883	13; PMID:2563162	ariopiiri adile
r 60	0.00	100		•	A; Molecu A: Residu	le type: mRN es: 9-1153 <	A HIC>				
	٠. د	~			A; Cross-	references:	GB:J04	145; N	IID:91890	168; PIDN:AAA59903.1; E	PID:9386975

integrin alpha-2b	position-specific	integrin alpha-7 c	alpha-7 integrin -	leukocyte adhesion	glycoprotein IIb -	integrin alpha cha	F54F2.1 protein -	integrin alpha v c	hypothetical prote	integrin alpha cha	integrin alpha cha	glycoprotein IIb -	integrin alpha cha	glycoprotein 11b -	integrin alpha-1 -
A34269	A29637	JC5950	161186	B30892	A60163	S38783	S44824	S60571	S28277	T09403	T09433	136916	T18523	136917	A55348
~	~	~	N	7	7	7	~	7	~	~	7	~	~	~	~
1039	1394	1137	1135	126	1037	1106	1226	1045	1139	1115	1115	764	1086	604	272
8.4	8.4	8.3	8.3	8.3	89 .3	8.0	7.9	7.7	7.6	7.2	7.1	6.7	5.3	5.1	5.0
495.5	494	490	488	486	485.5	469.5	466	454	445.5	422	417.5	391	309	299	296.5
30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

## ALIGNMENTS

	RESULT 1 RWHII1B
	cell surface glycoprotein CD11b precursor (validated) - human N;Alternate names: complement receptor type 3 alpha chain; leukocyte adhesion protein eukocyte integrin alpha chain; neutrophil adherence receptor alpham chain C;Species: Homo saniens (man)
	C;Date: 31-Dec-1992 #sequence revision 31-Dec-1992 #text change 31-Dec-2000 C;Accession: A31108; A28915; A41600; A30892; A32218; A46526; A26091; I52567 R;Corbi, A.L.; Kishimotc, T.K.; Miller, L.J.; Springer, T.A.
	A; Fitle: The human leukocyte adhesion glycoprotein Mac-1 (complement receptor type 3,
	b. A;Reference number: A31108; MUID:88315033; PMID:2457584
	A;Accession: A31108 A;Molecule type: mRNA
	A;Residues: 1-1153 <cor> A:Cross-references: GB:J03925: NID:q187284: PIDN:AAA59544.1: PID:q307148</cor>
	A, Note: part of this sequence was confirmed by protein sequencing
	R;Arnaout, M.A.; Gupta, S.K.; Pierce, M.W.; Tenen, D.G. J. Cell Biol. 106, 2153-2158, 1988
	A,Title: Amino acid sequence of the alpha subunit of human leukocyte adhesion receptor
	A;KETETEOTE NUMBOET: AZBYLS; MULD:88ZS/ZLS; FMID:2454931 A;Accession: AZB915
	A; Molecule type: mRNA
	A;Residues: 1-499,501-965, 'P', 967-1153 <arn></arn>
	A; Closs-teleficies; Cs:matov+; Ds:Jouz-Vo; Gs:misov+; Gs:XVV/41; NID:Gjs0935; FIDN:Amo- A; Note: the authors translated the codon TAC for residue 1129 as Thr
	A; Note: part of this sequence, including the amino end of the mature protein, was conf
	R;Shelley, C.S.; Arnaout, M.A. Proc. Natl. Acad. Sci. U.S.A. 88, 10525-10529, 1991
	A; Title: The promoter of the CD11b gene directs myeloid-specific and developmentally i
	A;KETEKENCE NUMBOET: A41600; MULD:920/3318; FMID:1683/02 A:Accession: A41600
-	A; Molecule type: DNA
	A.Residues: 1-9 <she></she>
	A.Crosel references: Garmio.C.4.; All:glouls; Flun.4AASG410.1; Fluig35.2.1s R:Armaout. M.A.: Remold-O'Donnell, E.; Pierce, M.W.: Harris, P.: Tenen, D.G.
	Proc. Natl. Acad. Sci. U.S.A. 85, 2776-2780, 1988
	A; Title: Molecular cloning of the alpha-subunit of human and guinea pig leukocyte adhe
	A.Accession: A30892
	A; Molecule type: mRNA
	A, Residues: 917-1042 < AR2>
	A.Cross-Tereforces: Gs:Manov4+ R:Hicketein, D.D.: Hickev, M.J.: Ozols, J.: Baker, D.M.: Back, A.L.: Roth, G.J.
	Proc. Natl. Acad. Sci. U.S.A. 86, 257-261, 1989
	A;Title: CDNA sequence for the alphaM subunit of the human neutrophil adherence recept
	Affeterence inducar: Aszzie; MolD:890983; FMID:2563162 A.Brression: A32218

Tue

```
leukocyte surface glycoprotein Mac-1 alpha chain precursor - mouse
NyAlternate names: complement-3 receptor alpha chain
C;Specias: Mus musculus (house mouse)
C;Date: 30-Sep-1989 #sequence_revision 30-Sep-1991 #text_change 22-Oct-1999
C;Accession: 800551; I59078
E;Pytela, R.
EMBO J. 7, 1371-1379, 1988
A;Title: Amino acid sequence of the murine Mac-1 alpha chain reveals homology with th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1080
                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        976
                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                      919
                                                                                         420
                                                                                                                                                                                                                        496
                                                                                                                                                                                                                                                                                                               556
                                                                                                                                    436
                                                                                                                                                                                  480
           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     917 QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1037 FFGIQEEPNATLKGNLSFDWYIKTSHNHLLIVSTAEILENDSVFTLLPGQGAFVRSQTET
                                                                                                                                                                                                                                                                                                                                                                                    661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               857 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
                                                                                                                                                                                                                                                                                                                                                               541 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                 PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          797 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
           NFEALKTIONOLREKI FAIEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG
                               317 NFBALKTIQNQLREKIFAIEGTQTGSSSSPEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                         GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                             QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                        481 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                             GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                               GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                    ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A,Molecule type: DNA
A,Residues: 1-1153 <PYT>
A;Cross-references: EMB:x07640; NID:952982; PIDN:CAA30479.1; PID:952983
A,Nore: the authors translated the codon CAC for residue 569 as Gln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Accession: S00551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
           301
                                                                                               361
                                                                                                                                        377
                                                                                                                                                                                      421
                                                                                                                                                                                                                             437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                    셤
                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                        õ
                                           셤
                                                                                    ઠે
A;Note: part of this sequence was confirmed by protein sequencing

B;Immunol. 150, 480-190, 1939

A;Immunol. 150, 480-190, 1939

A;Immunol. 150, 480-190, 1939

A;Immunol. 150, 480-190, 1939

A;Edecemen munor: A6525; MUID 93123149; PMID:8419480

A;Sttession. A6525; MUID 93123149; PMID:8419480

A;Sttession. A6525; MUID 93123149; PMID:8419480

A;Sttession. A6525; MUID 93123149; PMID:8419480

A;Sttession. A6525; MUID 93123149; PMID:8419480

A;Sttession. A6525; MUID 93123149; PMID:8419480

A;Sttession. Affective extracted from Kill Pachbone (KNGIP):113651

A;Note: sequence extracted from Kill Pachbone (KNGIP):113651

B;Achim Biophys, Acts 347, 364-311, E.; Todd III, R.; Atmaout, M.A.

A;Note: sequence extracted from Kill Pachbone (KNGIP):1339202

A;Notec: sequence extracted from Kill Pachbone (KNGIP):1339202

A;Notec: sequence extracted from Kill Pachbone (KNGIP):1339202

A;Notec: sequence extracted from Kill Pachbone (KNGIP):1339202

A;Notec: sequence extracted from Kill Pachbone (KNGIP):1339202

A;Notec: sequence extracted from Kill Pachbone (KNGIP):1339202

A;Notec: sequence extracted from Kill Pachbone (KNGIP):1339202

A;Notec: sequence extracted from Kill Pachbone (KNGIP):1339202

A;Notec: sequence extracted from Kill Pachbone (KNGIP):1339202

A;Notec: sequence extracted from Kill Pachbone (KNGIP):134506

A;Notec: sequence in A;Notec: sequence (KngIP):144586; PMID:134506

A;Notec: sequence (KNGIP):144586; PMID:134506

A;Notec: sequence (KNGIP):144586; PMID:1346576

A;Comment: A common beta chain (CDIB): forms a heterodimer with this chain to form Mac-1-Comment: A common beta chain (CDIB): forms a perecodimer with this chain to form Mac-1-Comment: A common beta chain (CDIB): forms a perecodimer with this chain to form Mac-1-Comment: A common beta chain (CDIB): forms a perecodimer with this chain to form in Signal sequence (Rathoner Contains a CART): A sequence (Rathoner Contains a CART): A sequence (Rathoner Contains a CART): A sequence (Rathoner CONTAINS): A sequence (Rathoner CONTAINS): A sequence (Rathoner CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TDGEKFGDPLGYEDVIPEADREGVIRYVIGYGDAFRSEKSRQELNTIASKPPRDHVFQVN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLROQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            137 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RIHFTFKEFONNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                197 RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILVVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 5868; DB 1; Length 1153; Pred. No. 0; 3; Mismatches 1; Indels 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99.98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 99.6
Matches 1133; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
```

d

ò 셤 ò g 8 a

ò

ò

```
F;61,89,392,697,735,899,939,1050/Binding site: carbohydrate (Asn) (covalent) #status
                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                 1080
                    781
                                              음
                                                                                   ઠે
                                                                                                                셤
                                                                                                                                                ઠે
                                                                                                                                                                             셤
                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                                                                                              셤
R;Sastre, L.; Roman, J.M.; Teplow, D.B.; Dreyer, W.J.; Gee, C.E.; Larson, R.S.; Roberts, Proc. Natl: Acad. Sci. U.S.A. 83, 5644-5648, 1986
A;Title: A partial genomic DNA clone for the alpha subunit of the mouse complement recept A;Reference number: IS9078; MUID:86287312; PMID:2942940
A;Accession: IS9078
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 11-44 <RES>
A;Cross-references: GB:M14293; NID:g198993; PIDN:AAA39484.1; PID:g554193
                                                                                                                                                                            C;Superfamily: cell surface glycoprotein CD11b; von Willebrand factor type A repeat home C;Keywords: cell adhesion; glycoprotein; transmembrane protein F:1-16/Domain: signal sequence #status predicted <SIG> P:17-1153/Product: leukocyte surface glycoprotein Mac-1 alpha chain #status experimental F:17-1153/Product: leukocyte surface glycoprotein Mac-1 alpha chain: von Willebrand factor type A repeat homology <VWA2> F:148-318/Domain: transmembrane #status predicted <TWM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TLVGEPLRSFGNLRPVLAMDAQRFFTAMFPFEKNCGNDSICQDDLSITMSAMGLDTLVVG 795
                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                    TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  YDLALDSGRPHSRAVFNETKNSTRROTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 780
                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                               92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FPEALRECPQQESDIVFLIDGSGSINNIDFQKMKEFVSTVMEQFKKSKTLFSLMQYSDEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NFEALKTIQNQLREKIFA TEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAFLYTSKDKVTFINTTRVDSDMNDAYLGYASAVILRNRVQSLVLGAPRYQHIGLVVMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRG-RARWQCEALLHGDQGHPWGRFGAALTVLGDVNGDKLTDVAIGAPGEQENQGAVYIF
                                                                                                                                                                                                                                                                                                                                                                  FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                   RLQVPVEAVNMSLGLSLAAITTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FPEALRGCPQEDSD1AFL1DGSGS11PHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RIHPTFKEFONNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRGORARWOCDAVLYGEQGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQ1QSVVT
                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                  ..
7
                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                 Query Match
76.2%; Score 4476; DB 2;
Best Local Similarity 74.3%; Pred. No. 1.2e-301;
Matches 845; Conservative 142; Mismatches 149;
                                                                                                                                                                 A,Gene: Mac-1
C,Superfamily: cell surface
                                                                                                                                                                                                                                                                                                                                                                                                   17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ठे
```

```
cell surface glycoprotein CD11c precursor - human
NyAlternate names: leukocyte adhesion receptor p150,95 alpha chain
C;Species: Home sapiens (man)
C;Species: Home sapiens (man)
C;Species: Home sapiens (man)
C;Species: Home sapiens (man)
C;Species: Home sapiens (man)
C;Species: Home sapiens (man)
C;Species: Home sapiens (man)
C;Species: Home sapiens (man)
C;Species: Home sapiens (man)
C;Species: Home sapiens (man)
A;Species: Home service (man)
A;Reference number: A36584
A;Molecule type: DNA
A;Residues: 1-1163 <COR>
A;Note: this revision to the sequence from reference A35543 includes the carboxyl end
A;Residues: Line acvision to the sequence from reference A35543 includes the carboxyl end
B;Oxbi, A.L.; Garcia-Aguilar, J.; Springer, T.A.
J. Biol. Chem. 265, 2782-2788, 1990
A;Title: Genomic structure of an integrin alpha subunit, the leukocyte p150,95 molecul
A;Recerence number: A35543; MUID:90153906; PMID:2303426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A/Cross-references GDB.119758; OMIM:151510
A;Map position: 16p11.2-16p11.2
C;Superfamily: cell surface glycoprotein CD11b; von Willebrand factor type A repeat ho C;Superfamily: cell surface glycoprotein; heterodimer; magnesium; tandem repect C;Keyword: calcium; cell adhesion; glycoprotein; heterodimer; magnesium; tandem repect F;1-19/Domain: signal sequence #steatus predicted <SIG>F;20-1163/Product: cell surface glycoprotein CD11c #status predicted <MAT>F;20-1107/Domain: extracellular #status predicted <BTP>F;149-319/Domain: von Willebrand factor type A repeat homology <WA4>F;1108-1133/Domain: intracellular #status predicted <IMM>F;1134-1163/Domain: intracellular #status predicted <IMT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          structure of the alpha subunit of a leukocy PMID:3327687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the leukocyte p150,95 molecul
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Residues: 1-755, 1.757-1163 <CO3>
A;Cross-references: GB:M81695; EMBL:Y00093; NID:9487829; PIDN:AAA59180.1; PID:9487830
A;Cross-references: GB:M81695; EMBL:Y00093; NID:9487829; PIDN:AAA59180.1; PID:9487830
A;Note: part of this sequence was confirmed by protein sequencing
C;Comment: A common beta chain (CD18) forms a heterodimer with CD11b to form Mac-1 on C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                               959
    839
                                                                                                                                                                       840 VSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTE 899
                                                                                                                                                                                                                                                         915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1096 TKVEPYEVHNPVPLIVGSSIGGLVLLALITAGLYKLGFFKRQYKDMMRAAPQDAPPQ 1153
                                                                                                                                                                                                                         GHGALKSTTWNINHPIFPANSEVTFNVTFDVDSHASFGNKLLLKAIVASENNMSRTHKTK
                                                                                                                                                                                                                                                                                                                                                                                             916 FQLELPVKYAIYMIVTSDESSIRYLNFTASEMTSKVIQHQYQFNNLGQRSLPVSVVFWIP
GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRL-ACESASSTE
                                                 796 GPQDFNMSVTLRNDGEDSYGTQVTVYYPSGLSYRKDSASQNPLTKKPWFVKPAESSSSSE
                                                                                                                                                                                                                                                                                                                                               POLELPUKXAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VRINOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A,Accession: A35543
A,Molecule type: DNA
A,Residues: 1-834 <CO2>
A,Note: this sequence has been revised in reference A36584
A,Note: this sequence has been revised in reference A36584
R,Corbi, A.L.; Miller, L.J.; O'Connor, K.; Larson, R.S.; Springer, T.A.
BMBO J. 6, 4023-4028, 1987
A,Tille: CDNA cloning and complete primary structure of the alpha subun.
A,Reference number: S00864; MUID:88166645; PMID:3327687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A, Gene: GDB: ITGAX; CD11C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Accession: S00864
A; Molecule type: mRNA
```

```
1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGOGAFVRSOTE 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                   4
                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         736
                                                                                                                                                                                                                                                                                                                                                                                              616
                                                                                                                                                                                                                                                                                                                                                                                                                 99
                                                                                                                                                                                                                                                                                                                                                                                                                                    919
                                                                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         959
                                                                                                            257
                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                      497
                                                                                                                                                                                                                                                                                                                                                           556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 854
                                                                                                                                                                                      TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 300
                                                                                                                                                                                                NFEALKTIONOLREKIFALEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                       DFDALKDIQNQLKEKIFAIEGTETTSSSSFELEMAQEGFSAVFTPDGPVLGAVGSFTWSG 377
                                                                                                                                                                                                                                                                                  437
                                                                         RLOVPVEAVNMSLGLSLAAITTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                          137
                                                     79
                                                                                                                                                                                                                                                                GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                           PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                   HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                             661 YDLALDSGRPHSRAVFNETRNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SCALKSISCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRINKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OLELPVKYAVYMVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VELNQEAVWMDVEVSHPQNPSLRCSSEKIAPPASDFLAHIQKNPVLDCSIAGCLRFRCDV
                                                                                    PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                      FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                  RIHFTFKEFONNPNPRSLVKPITOLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                   Gaps
                   9
Length 1163;
                   Indels
ttch 59.3%; Score 3483; DB 1; 1sal Similarity 61.4%; Pred. No. 8.8e-233; 693; Conservative 138; Mismatches 292;
                                                                                                                                138
                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                       20
                                                                          61
                                                                                                              121
                                                                                                                                                                                                         258
                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                              318
                                                                                                                                                                                                                                                                                                                        438
                                                                                                                                                                                                                                                                                                                                                           498
                                                                                                                                                                                                                                                                                                                                                                                                 557
                                                                                                                                                   181
                                                                                                                                                                   198
                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                  361
Query Match
                                                                                                                                                                                                                                                                                                     421
                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 6 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                        ठे
                                                                                                                           음
상
음
                                                                                                                                                                                  ò
                                                                                                                                                                                                      8 & 8
                                                                                                                                                                                                                                                              8
8
                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                      9 g
                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                            8 B 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                         ò
                                                                                                                                                                                                                                                                                               ò
```

```
A;Molecule type: DNA
A;Residues: 1-20 <COR>
A;Note: sequence extracted from NCBI backbone (NCBIN:130862, NCBIP:130863)
R;Shelley, C.S.; Farockhzad, O.C.; Arnsout, M.S.
Froc. Natl. Acad. Sci. U.S.A. 90, 5364-5368, 1993
A;Title: Identification of cell-specific and developmentally regulated nuclear factor:
A;Reference number: A47565; MUID:93281759; PMID:8099450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Gene: GDB:ITGAL; CDI1A
A;Cross-references: GDB:119757; OMIM:153370
A;Map position: 16p11.2-16p11.2
A;Map position: 16p11.2-16p11.2
C;Superfamily: cell surface glycoprotein CDI1b; von Willebrand factor type A repeat ht C;Superfamily: cell surface glycoprotein; heterodimer; surface antigen; I C;Keywords: cell adhesion; cytoskeleton; glycoprotein; heterodimer; surface antigen; I E;1-25,Domain: signal sequence #status predicted <SIGS |
F;2-5.170/Product: leukcoyte adhesion glycoprotein LFA-1 alpha chain #status predicted F;154-317/Domain: von Willebrand factor type A repeat homology <WAR2>
                                                                                                                                                                                                                                                                                                               cell surface glycoprotein CD11a precursor - human N;Alternate names: leukocyte adhesion glycoprotein LFA-1 alpha chain; leukocyte functi C;Species: Homo sapiens (man) C;Species: Homo sapiens (man) C;Date: 28-Feb-1990 #text_change 20-Aug-1999 C;Accession: S03308; A47458; A47565; A48759; S36044 R;Larson, R.S.; Corbi, A.L.; Berman, L.; Springer, T. A;Tille: Primary structure of the leukocyte function-associated molecule-1 alpha subur A;Reference number: S03308; MUID:89139587; PMID:2537322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CD11a)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A Molecule type: DNA
A; Molecule type: 1-20 < SHE>
A; Residues: 1-20 < SHE>
A; Cross - references: GBH95609
B; Nueda, A.; Lopez-Cabrera, M.; Vara, A.; Corbi, A.L.
J. Blol. Chem. 268, 19305-19311, 1993
A; Title: Characterization of the CD11a (alphaL, LFA-lalpha) integrin gene promoter.
A; Reference number: A48759; MUID:93374910; PMID:8103515
                                    1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -QQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLM 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LQGRPGFQECIKG----NVDLVFLFDGSMSLQPDEFQKILDFMKDVMKKLSNTSYQFAAV 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26 YNLDVRGARSFSPPRAGRHFGYRVLQV-GNGVIVGAPGE---GNSTGSLYQCQSGTGHCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLR---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Molecule type: DNA
A;Residues: 1-20 <NUE>
A;Cross-references: EMBL:Z22804; NID:g311405; PIDN:CAA80461.1; PID:g311406
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (LFA-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FNLDTENAMTFQ - - ENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A,Molecule type: mENA
A,Residues: 1-1170 <LAR.
A,Crose-references: EMBL: Y00796; NID:g31421; PIDN:CAA68747.1; PID:g31422
A,Crose-references: EMBL: Y00796; NID:g31421; PIDN:CAA68747.1; PID:g31422
A,Note: part of this sequence was confirmed by protein sequencing
R;Cornwell, R.D.; Gollahon, K.A.; Hickstein, D.D.
R;Cornwell, R.D.; Gollahon, K.A.; Hickstein, D.D.
A,Title: Description of the leukocyte function-associated antigen 1 (LFA-A,Reference number: A4458; MUID:93248261; PMID:897887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 26.4%; Score 1548.5; DB 2; Length 1170; Best Local Similarity 34.5%; Pred. No. 1.2e-98; Matches 405; Conservative 208; Mismatches 460; Indels 101;
                                                                                            A; Accession: S03308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Accession: A47565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ႕
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29
                                                                                                      1080
                                                                                                                                                                     1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            116
                                          1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                გ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                         8
                                                                                                                                                           요
```

a

molecule-1 alpha-subunit

in .

```
AS-SMFSLCSSLSISFNSBKHFHLYGSNASL-AQVVMKVDVVYEKQMLYLYVLSGIGGLL 1102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -ERLPSHSD--FLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIK 1043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1044 TSHNHLLIVSTABILFNDSVFTLLPGQGAFVRSQTBTKVBPFEVPNPLPLIVGSSVGGLL 1103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1003 LERLPDAAEPCLPGALFRCPVV--------FRQEILVQVIGTLELVGBIE 1044
                                                                                                                                                                                                                                                                                875
                                                                                                                                                                                                                                           588
                                                                                                                                                                                                                                                                                                                                                                                                       817
                                                   IGLVAMFR -- ONTGMWESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEOT 470
                                                                                                                                                                                489
                                                                                                                                                                                                                      544
                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                        707
                                                                                                                                                                                                                                                                                                                                                               757
                                                                                                                                                                                                                                                                                                                                                                            TSRVMQHQYQV --- SNLGQRSLP-ISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTK- 986
                                                                              354
                                                                                                                                                                                                                                                                                                                                    PQF-QGRLVANLTYTLQLDGHRTRRRGLFPGGRHELRRNIAVT-TSMSCTDFSFHFPVCV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNI CQDDLS I TFS FMSLDQL VVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                          834 ML---KPHSQIPVSCEELPEESRLLSRAL---SCNVSSPIFKAGHSVALQMMFNTLVNSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVG
                                                                                                                                                                     GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                       EDPVSPIVLRLNFSL---VGTPLS--AFGN-----LRPVLAEDAQRLFTALFPFEKNCGN
                                                                                                                                                                                                                                                                                                                                                                                                                                            818 TLONORSORSWRLACES- ASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKAS
OYSEEFRIHFTFKEFONNPNPRSLVKPITOLLGRTHTATGVRKVIRELLNITNGARKNAF
                                        KILIVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRD
                                                                                                                     SYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQH
                                                                                                                                                                                                    RGGOVSVCPLPRGQRARWQCDAV--LYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                                                                                                                                                                        DRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LLALITAALYKLGFFKROYKDMMSEG-GPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             310
                                                                                                                                       370
                                                                                                                                                           413
                                                                                                                                                                                430
                                                                                                                                                                                                                                                                                                                                            661
                                                                              295
                                                                                                                                                                                                                                                                                 589
                                                                                                                     355
                                                                                                                                                                                                    471
                                                                                                                                                                                                                                                                                                     602
                                                                                                                                                                                                                                                                                                                                                                                   719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1103
                   197
                                                                                                                                                                                                                                          529
                                                                                                                                                                                                                                                                                                                        648
                                                                                                                                                                                                                                                                                                                                                                                                       758
                                                                                          8
                                                                                                                   ò
                                                                                                                                 8 8
                                                                                                                                                                         6 6 6 6 6 6
                                                                                                                                                                                                                                                                                                                 6 8 6 8 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  음 장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
             g
                                      6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ठ
```

molecule-1-alpha - mouse

156126 lymphocyte fuction-associated

```
A repeat ho
C; Species: Mus musculus (house mouse)
C; Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 20-Aug-1999
C; Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 20-Aug-1999
C; Accession: 156126
R; Kaufmann, Y: Tseng, E.; Springer, T.A.
J: Immunol. 147, 369-374, 1991
A; Title: Cloning of the murine lymphocyte function-associated molecule-1 alpha-sa, A; Feference number: 156126; MUID: 91268576; PMID: 2051027
A; Accession: 156126
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Residues: 1-1163 - REEs-A; Molecule type: RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Residues: 1-1163 - RES-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res-A; Res
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KPPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          : | : | : | : | | | | | | | | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      : | :: || || :: |: || || :: :: |

VERFYKILDTFEKLKDLFTDLQRRIYAIEGTNRQDLTSFNMELSSSGISADLSKGHAVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YQHIGLVAMFR - - QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YQHVGQVLLFQAPEAGGRWNQTQKIEGTQIGSYFGGELCSVDLDQDGBAELLLIGAPLFF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        468 EQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       : |||:|
485 GEQRGGRVFTY---QRRQSLFEMVSELQGDPGYPLGRFGAAITALTDINGDRLTDVAVGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PQ--FQGRLLANLSYTLQLDGHRMRSRGLFPDGSHELSGNTSITP-DKSCLDFHFHFPIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FRIHFTFKEF-QNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       239 VITDGEKFGDPLGYEDVIPEADREG-----VIRYVIGVGDAFRSEKSRQELNTIASKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         292 PRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TVGSYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAG-EVRVCLHVQKST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RDRLREGOIOSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IEDPVSPIVLRINFSLV---GTPLSAFGN-LRPVLAEDAQRLFTALFPFEKNCGNDNICQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24 YNLDTRPTQSFLAQAGRHFGYQVLQIEDG-VVVGAPGE---GDNTGGLYHCRTSSEFCQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VSLH-GSNHTSKYLGMTLATDAAKGSLLACDPGLSRTCDQNTYLSGLCYLFPQSLEGPML
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 FNLDTENAMTFQENA-RGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26.1%; Score 1533.5; DB 2; Length 1163; ilarity 34.0%; Pred. No. 1.3e-97; Conservative 217; Mismatches 458; Indels 99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 398; Conservat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ያ ያ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
```

Db 295 SSHGSRRKASKVMVLTDGGIFEDPLNLTTVINSPROGCVERFAIGVGEEFKSARTAREL 354  Qy 285 NTIASKPPRDHVEQVNNFEALKTIQNOLREKIPALEGTQTGSSSSFEHEMSQEGFSAAIT 344  Db 355 NLIASDPDETHAFKTTNYMALDGLLSKLRXINIISMEGTVGDALHYQLAGIGFSAQIL 411  Qy 345 SNGP-LLSTVGSYDWAGGVELY-TSKEKSTFINMTRVDSDMNDAYLGYAAAILLRN 398  412 DERQVLLGAVGAFDWSGGALLYDTRSRRGRFLNQTAAAABAEAAQYSYLGYAVAVLHKT 471  Qy 399 RVQSLVLGAPRYQHIGLVAMFR-ONTGWMESNANV-KGTQIGAYFGASLCSVDVDSNGST 456  Db 472 CSLSYVAGAPQYGHGAVFELQKEGREASFLPVLEGEQMGSYFGASLCPVDIDMDGST 529  Qy 457 DLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEOGQPWGRFGALTVLTGDVN 516	691 GLTQTCETLKLQLPNCIEDPVSPIVLRINFSLVGTPLSAFGNILRPVLAEDAQRLFT	RESULT 7 A45226 integrin alpha-1 chain - human (fragment) C;Species: Homo sapiens (man) C;Species: Homo sapiens (man) C;Species: 30-Apt-1993 #sequence_revision 18-Nov-1994 #text_change 31-Dec-2000 C;Accesion: A45226 R;Briesewitz, R.; Bpstein, M.R.; Marcantonio, E.E. J; Briol. Chem. 268, 2989-2996, 1993 A;Title: Expression of native and truncated forms of the human integrin alpha 1 subur. A;Reference number: A45226; MUID:93155124; PMID:8428973
763   DDLSITFSFRSLDCLVVGGR	RESULT 6 A3213 integrin alpha-E chain - human C;Species; Homo sapiens (man) C;Species; Homo sapiens (man) C;Species; Homo sapiens (man) C;Species; Homo sapiens (man) C;Species; Homo sapiens (man) C;Species; Homo sapiens (man) C;Species; Homo sapiens (man) C;Species; Homo sapiens (man) R;Shaw, S,K. Cepek, K.L.; Murphy, E.A.; Russell, G.J.; Brenner, M.B.; Parker, C.M. R;Shaw, S,K. Cepek, K.L.; Mulphy, E.A.; Russell, G.J.; Brenner, M.B.; Parker, C.M. A;Atle Molecular Cloning of the human mucosal lymphocyte integrin alpha(E) subunit. Un A;Accession: A53113; MulD;94164962; PMID:8119947 A;Rocession: A53113; MulD;94164962; PMID:8119947 A;Rocession: A53113 A;Rocession: A53113 A;Rocession: A53113 A;Rocession: A53113 A;Gonerics A;Gonerics A;Gonerics C;Gonerics A;Goneric	Qy 120 KFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRKEFVSTVMEQL 164

& a	& a	<b>장 음 (</b>	<b>A</b>	& A	& A	RES 145	0008	P P P C	ZEO	2 E4	** &	음 <b>&amp;</b>	음 <b>장</b>	a &	qa	ò 1	8 & 	qu	λ <sub>0</sub>
A;Accession: A45226 A;Status: preliminary; not compared with conceptual translation A;Molecule type: mRNA	A;Residues: 1-1151 <bri> A;Rxperimental source: hepatoblastoma cell line HepG2 A;Octe: sequence extracted from NCBI backbone (NCBIP:124326) C;Superfamily: unassigned collagens; von Willebrand factor type A repeat homology F;142-317/Domain: von Willebrand factor type A repeat</bri>	Query Match Best Local Similarity 27.8%; Pred. No. 9.4e-68; Matches 344; Conservative 211; Mismatches 487; Indels 195; Gaps 44;	1 FNLDTENAMIFQENARG-FGGSVVQLGGSRVVVGAPQEIVAANQRGSLYQCDYSTGS 56	57 CEP-IRLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGL 106	107 CFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLK- 165 120 CSDVSPTFQVVNSIAPVQECSTQ-LDIVIVLDGSNSIYPWDSVTAPLNDLLKRMDI 174	166 -KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGR-THTATGVRKVIRELL 223	224 NITNGARKNAFKILIVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSE 278	279 KSRQELNTIASKPPRDHVFÖVNNFEALKTIONQLREKIFAIEGTQTGSSSSFEHEMSGEG 338   ::   :	339 FSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTF-INMTRVDSDMNDAYLGYAA 392 	393 AIILRNRVQSL-VLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVD 451   :                   :	452 SNGSTDLVLIGAPHYYEQTR-GGQVSVCPLPRGORARWQCDAVLY 495 ::  ::  :     473 KDSNTDILLVGAPMYMGTEKEEQGKVYVYALNQTRPEYQMSLEPIKOTCCSSRQHNSCTT 532	496 GEQGQPWG-RFGAALTVLGDVNGDKLTDVALGAPGEEDNRGAVYLFHGTSGSGISPSHSQ 554	555 RIAGSKLSPRLOYFGQSLÄGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPR 614	615 EVARNVFECNDQVVKGKRÅGEVRVCLHVQ-KSTRDRLREGQIQSVVTYDLALDSGRPH 671 :	SRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLVGT	SRSFFSGTQERKVQRNITVRKSECTKHSFYMLDKHDFQDSVRITLDFNLT-D	726 PLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGGPRE- 784   :	785 FNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGAL 844	811 FNVSLTVKNTKDSAVNTRTIVHYSPNLVFSGIEAIQKDSCESN 853
AAA	FOAPA	U = 2	දු පු	8 6	è 6	S 8	<u>ک</u> ۾	8 G	<u>ک</u> ۾	8 S	상염	8 6	S G	중 염	8	<u>අ</u>	8 6	ò	g

કે ત	KSTSCSINHPIFPENSEVTFNITFDVDSKASLGN-KLLLKANVTSENNMFRTNKTEFQLE 90
qn	854 HNITCKVGYPFLKKGEMVIFKILFQFNISILMENVIITLSAISUSEEPPEILSDNVVNIS 913
<i>ት</i> ଶ	904 LPVKYAVYMVVTSHGVSTKYLNFTASENTSRYMQHQYQVSNLGQRSL 950 
ò	951 PISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPS 991
qu	973 KLSISFPNMTSNGYPVLYPTGLSSSENANCRPHIFEDPFSINSGKKMTT 1021
È	992 HSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQE
qq	1022 STDHLKRGTILDCNTCKFATITCNLTSSDISQVNVSLILWKPTFIKSYFSSLNLTIR 1078
È	LFNDSVFTLLPGQG
ପ୍ପ	1079 ĠEĽRŚENASĽVLŚSSNQKRELAIQISKDGLÞGRVPĽ 1114
දු පු	1094IVGSSVGGLLLALITAALYKLGFFKRQYKDMMSE 1128  :  :        :   :          1115 WYILLSAFAGLLLMLLILALWKIGFFKRPLKKKOMEK 1151
RESULT 145914	8 is alaba 2 subusit , bosine (Frament)
C; Speci	ins argus & Buronic - Dovaice (linguesic) is: Bos primigenius taurus (cattle) : 16-Aug-1996 #sequence_revision 16-Aug-1996 #text_change 20-Sep-1999 ssion: 145914
R; Kama J. Bio	
A;Titl A;Refe	e: Identification of putative ligand binding sites within the I-domain of integr ence number: A54402; MUID:94193647; PMID:7511592 884on: 145914
A;Stati A;Mole	us: preliminary; translated from GB/EMBL/DDBJ cule type: mRNA
A; kesi A; Cros C; Supe F; 161-	A;ReBidues: 1-11/0 xRam; 7/0 xRam; A;ABBS9255.1; PID:g439696 A;Cross-references: GB:L25886; NID:g439695; PIDN:AABS9255.1; PID:g439696 C;Superfamily: unassigned collagens; von Willebrand factor type A repeat homology F;161-336/Domain: von Willebrand factor type A repeat homology <vwa2></vwa2>
Query Ma Best Loc Matches	y Match Local Similarity 27.7%; Pred. No. 1.9e-66; hes 336; Conservative 216; Mismatches 495; Indels 168; Gaps 47;
ò	FNLDTENAMTFQ-ENARGFGGSVVQLQGSRVVVGAPQEIVAANQRGSLVQCDYST
음	9 YNVGLPKAKIFSGPSSEQFGYAVQQFINPKGNWLLVGSPWSGFPKNRMGDVYKCPVDLST
<b>상</b> 원	55 GSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLC 107
ò	108 FLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLK 165
අු	139 SDVSPDF-QLRTSFAPAVQTCP-SFIDVVVVCDESNSIYPWDAVKNFLEKFVQGLDIG 194
ò	166 KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGVRKVIRE 221
අු	195 PTKTQMGLIQYANNPRVVFNLNTFKSKDEMIKATSQTFQYGGDLTNTFKAIQYARDT 251
ò	222 LLNITNGARKNAFKILIVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFR 276
g	252 AYSTAAĞGREGATKVMVVYİDĞESH-DGSKLKAVİDQCNKDNILREGİAVLGYLNRNALD 310
કે ઇ	277 SEKSRQELNTIASKPPRDHVFOVNNFEALKTIONOLREKIFAIEGTQTGSSSSFEHEMSQ 336
2	INNELNEINALASI PIERRIFFINOS DEAD EBENAGI I GEQIFOS EGGI VQG-GUNFÇMENSO
<i>ò</i>	337 EGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMN-DAYLGYA 391

146 164 199 221 259

107 98

A.

```
A;Cross-references: EMBL:229987; NID:g473098; PIDN:CA882877.1; PID:g473099
C;Superfamily: unassigned collagens; von Willebrand factor type A repeat homology
F;169-344/Domain: von Willebrand factor type A repeat homology <VWA2>
                                                                                                                                                                                                                                                                                                                                                                                           260 AYSQTSGGRPGATKVMVVTDGESH-DGSKLKTVIQQCNDDEILRFGIAVLGYLNRNALD
                                                                                                                                                                                                                                                                                                                                                NDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALD----SGRPHSRAVFNET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SERFLOKAWVVDEVQKCSEHHISIQKPS----PDVVNPLDLRVDISLENPGTS-----PAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTE--FQLELP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQR-----SLPISLV
                                                                                                                                                       SEKSRQELNTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQ
                                                                                                                                                                                                                                                                                                                                                                             EGFSA--AITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT--RVDSDMN-DAYLGYA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VDVDSNGSTDLVLIGAPHYYEQTR - - GGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -LQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KNSTRRQTQVLGLTQTCET - - LKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AEDAQRIFTALFPFEKNCGNDNICQDDLSI-----TFSFMSLDCLVVGGPREFNVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASST-EVSGALKST
                                                                                                          GSCEPIRLO------VPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLC
                                                                                                                                                                                        FLFGSNLRQQPQ---KFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL
                                                                                                                                                                                                    K--KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLG-RTHTATGVRKVIRE
                                                                                                                                                                                                                                                 DIGPKKTQVALIQYANEPRIIFNLNDFETKEDMVQATSETRQHGGDLTNTFRAIEFARDY
                                                                                                                                                                                                                                                                                  LLNITNGARKNAFKILIVITDGEKFGDPLGYEDVIPEADREGVIRYVIGV-----GDAFR
                                                                                                                                                                                                                                                                                                                                                                                                                          AAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANV----KGTQIGAYFGASLCS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAALTVIGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPR-
                                                                                            1 FNLDTENAMTFQ-ENARGFGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQC--DYST
                                                                     Indels 188;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18.2%; Score 1072; DB 2; 28.1%; Pred. No. 1.3e-65; ive 206; Mismatches 487;
                                                                     Conservative 206;
                                                          Similarity
                                               Query Match
Best Local Simi:
Matches 344; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        848
                                                                                                                                                                                      80
                                                                                                                                                                                                                                                                                 222
                                                                                                                                                                                                                                                                                                                                277
                                                                                                                                                                                                                                                                                                                                                      319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              872
                                                                                                                                         55
                                                                                                                                                                                                                                                                                                                                                                             337
                                                                                                                                                                                                                                                                                                                                                                                                                           392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               යි පි
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              음 상 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                            요
                                                                                                                                                             셤
                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                             ઠે
                                                                                                                                         ઠે
                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Latze
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VIA-2 protein homolog - mouse
C;Species: Mus musculus (house mouse)
C;Species: Mus musculus (house mouse)
C;Accession: S44142
R;Edelman, J.M.; Chan, B.M.; Uniyal, S.; Onodera, H.; Wang, D.Z.; Damjanovich, L.; L. submitted to the EMBL Data Library, January 1994
A;Reference number: S44142
A;Reference number: S44142
A;Reference number: S44142
A;Returus: preliminary
A;Molecule type: mRNA
A;Residués: 1-1178 <EDE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEI- 1057
                                                                                                                                                                                        658
                                                                                                                                                                                                                                                                                                         789
                                                                                                                                                                                                                                                                                                                                                        848
                                                                                                                                                                                                                                                                                                                                                                                                      908
                                                                                                                                                                                                                                                                                                                                                                                                                           923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                966
                                               484
                                                                       503
                                                                                             541
                                                                                                                                          600
                                                                                                                                                                621
                                                                                                                                                                                                               677
                                                                                                                                                                                                                                     707
                                                                                                                                                                                                                                                           733
                                                                                                                                                                                                                                                                                  756
                                                                                                                                                                                                                                                                                                                                816
                                                                                                                                                                                                                                                                                                                                                                              864
                                                                       CSVDVDSNGSTDLVLIGAPHYYEQTR - - GGQVSVCPLPRGQRARWQCDAVLYGEQGQPWG
                                                                                  RFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGS--KL
                                                                                                                                 CSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKY
                                                                                                                                                                                                                                                                                                                                                                                                                   CNVGYPALKSKQQVTFTINFDFNLQ-NLQNQASISFRALSESQEENMADNSVNLKLSLLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                   909 AVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQR-----SLPISLVFLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                PVRLNQTVIWDRPQVTFSEN---LSSTCHTKE-------RLPSHSDFLAE-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LFNDSVFTL-----LPGQGAFVRSQTETKVEPFE-VPNPLPLIVGSSVGGLLLLALITA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VGFSAEYSPQNNILMLGAVGAYDWSGTVVQKTPHGHLIFSKQAFEQILQDRNHSSYLGYS
                                         SPRLOYFGOSLSGGODLTMPGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVF
                                                                                                                                                                                                               ----SGRPHSRAVFN
                                                                                                                                                                                                                                                            ETKNSTRRQTQVLGLTQTCE - - TLKLQLPNCIEDPVSPIVLRLNFSL - - VGTPLSAFGNL
                                                                                                                                                                                                                                                                                                          RPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITF----SFMSLDCLVVGGPREFNVTV
                                                                                                                                                                                                                                                                                                                           TVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASST-EVSGALKSTS
                         AAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANV-----KGTQIGAYFGASL
                                                                                                                                                                                                               ECNDOVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALD-
                                                                                                                                                                                                                                                                                                                        ••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ALYKLGFFKRQYKDM 1125
|:||||||:|
ILWKLGFFKRKYEKM 1155
                                                                                                                                                                                                                                      NKNAEI -----KLKLCF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           : : : : : TYNPQIYVIEENTVTIP-
                                                                                                                                                                                                                                                                                                                                 757
                                                                                                                                                                                                                                                                                                                                                                                                                             865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1091
                                                                                               485
                                                                                                                     504
                                                                                                                                                                   562
                                                                                                                                                                                                               622
                                                                                                                                                                                                                                      629
                                                                                                                                                                                                                                                             678
                                                                                                                                                                                                                                                                                   708
                                                                                                                                                                                                                                                                                                           734
                                                                                                                                                                                                                                                                                                                                                        190
                                                                                                                                                                                                                                                                                                                                                                                                       849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1111
                                                                       446
                                                                                                                                            542
                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 9
S44142
                                                                                                                                                                                                                                                                                                                                                                                              6 6 6 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
9
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                           a
                                                                                       8 S
                                                                                                                                  8 8 8 8
                                                                                                                                                                                                                               8 6 8
                                                                                                                                                                                                                                                                                                  8 6 8 6
                         ò
                                                                     ò
```

336

377 391 437

318

276

447

494

505

551 564 610

623

99 618 717 737 768 788 847 871 905

823

-

ر در کشد <sup>۱</sup> که د

SS GSCEPIRLQVPVEAVMMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLC 107	266 ASGGRESATKVAVVTDGESH-DGSMLKAVIDQCNHDNILRFGIAVLGYLLNRNALDTKN 324 280 SRQELNTIASKPPRDHVPONNPEALKTIQNQLEKIFAIEGTQTGSSSSFEHEMSGEGF 339 281 SIGHT SKRPTDHVPONNPEALKTIQNQLEKIFAIEGTQTGSSSSFEHEMSGEGF 339 31 SALIKEIKAIASIPTERYFFNVSDEAALLEKAGTLGEQIFSIEGTVQG-GDNPQMEMSQVGF 383 31 SAAITSNGP-LLSTVGSYDMAGVELYTSKEKSTFINMTRYDSDMN-DAYLGYAAAI 394 31 SADYSSQNDILMLGAVGAFGMSGTIVQKTSHGHLIFPRQAFDQILQDRNHSSYLGYSVAA 443 31 SADYSSQNDILMLGAVGAFGMSGTIVQKTSHGHLIFPRQAFDQILQDRNHSSYLGYSVAA 443		565 LQYFGQSLSGGODLTMDGLUDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECN 624	EDAQRLFTALPPFEKNCGNDNICQDDLSITFSFWSLDCLVVGGPREFNVTVTVRND ::	881 PALKREQQUIFTINFDFNLQ-NLQNQASLSFQALSESQEENKADNLVNLKIPLLYDAEI- 938 914 VTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLV 958 915HLTRSTNINFYEISSDGNVPSIVHSFEDVGPKFIFSLKVTTGSVPVSMATVIIHPQ 995 916
8 8 8 8 8 8	8 8 8 8 8 8	6 8 8 8 8	8 8 8 8 8	<b>3                                    </b>	8 8 8 8 8 8
Db 929 LLYDAELHLT-RSTNINPYEISSDENAPSVIKSVEDIGPKFIFSLKVTAGSAPVSMA 984  Oy 956 FLV	Oy 1101 GLLLLAJITAALYKLGFPKRQYKOM 1125	C; Accession: A33998; BS6793; A53117 R; Takada, Y.; Hemler, M.E. A; Title: The primary structure of the VLA-2/collagen receptor alpha(2)-subunit (platelet A; Reference number: A33998; MUID:89308879; PMID:2545729 A; Recession: A33998 A; Molecule type: mRNA A; Residues: 1-1181 cTARA A; Residues: 1-1181 cTARA A; Residues: 1-1181 cTARA A; Note: the authors translated the codon GAT for residue 802 as GIn, GTC for residue 803	Ricalimel, B.; Parmentlers, S.; Leung, L.L.; McGregor, J.L. Biochem. J. 279, 419-425, 1991 A; Title: Separation of important new platelet glycoproteins (GPIa, GPIc, GPIC*, GPIIa and A; Reference number: A56793; MUID:92061944; PMID:1953640 A; Accession: B56793; MUID:92061944; PMID:1953640 A; Accession: B56793; MUID:92061944; PMID:1953640 A; Residues: 30-43 <cat- 1994="" 269,="" 463-469,="" a.="" a.s.;="" a;="" alpha-2="" and="" b;="" biol.="" chem.="" control="" experimental="" gafford,="" gene="" human="" i<="" identification="" in="" integrin="" j.="" m.m.;="" more="" negation="" of="" painter,="" platelet="" positive="" promoter.="" s.a.;="" santoro,="" source:="" td="" the="" title:="" tsung,="" y.l.;="" zutter,=""><td>A; Accession: A53117 A; Molecule type: DNA A; Molecule type: DNA A; Molecule type: DNA A; Molecule type: DNA A; Cross-references: GB: L24121; NID: 9400342; PIDN: AAA16619.2; PID: 94583535 A; Note: authors translated the codon GTA for residue 17 as Leu A; Genetics: C; Genetics: GDB: 1228031; OMIM: 192974 A; Cross-references: GDB: 128031; OMIM: 192974 A; Map position: 5q11.1-5q11.2 C; Superfamily: unassasigned collagens; von Willebrand factor type A repeat homology C; Kewwords: Cell adhesion: glucortories; ransmembrane protein</td><td>F;1-29/Domain: Bignal sequence #status predicted &lt;515- F;30-1133/Domain: extracellular #status predicted &lt;515- F;10-1133/Domain: won Willebrand factor type A repeat homology <vwa2> F;1134-1154/Domain: transmembrane #status predicted <tvm> F;1134-1154/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm #status="" <tvm="" domain:="" f;1155-1181="" intracel<="" intracellular="" predicted="" td=""></tvm></tvm></tvm></tvm></tvm></tvm></tvm></tvm></tvm></tvm></tvm></tvm></tvm></tvm></vwa2></td></cat->	A; Accession: A53117 A; Molecule type: DNA A; Molecule type: DNA A; Molecule type: DNA A; Molecule type: DNA A; Cross-references: GB: L24121; NID: 9400342; PIDN: AAA16619.2; PID: 94583535 A; Note: authors translated the codon GTA for residue 17 as Leu A; Genetics: C; Genetics: GDB: 1228031; OMIM: 192974 A; Cross-references: GDB: 128031; OMIM: 192974 A; Map position: 5q11.1-5q11.2 C; Superfamily: unassasigned collagens; von Willebrand factor type A repeat homology C; Kewwords: Cell adhesion: glucortories; ransmembrane protein	F;1-29/Domain: Bignal sequence #status predicted <515- F;30-1133/Domain: extracellular #status predicted <515- F;10-1133/Domain: won Willebrand factor type A repeat homology <vwa2> F;1134-1154/Domain: transmembrane #status predicted <tvm> F;1134-1154/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm> F;1155-1181/Domain: intracellular #status predicted <tvm #status="" <tvm="" domain:="" f;1155-1181="" intracel<="" intracellular="" predicted="" td=""></tvm></tvm></tvm></tvm></tvm></tvm></tvm></tvm></tvm></tvm></tvm></tvm></tvm></tvm></vwa2>

621 PSGGDGKTLKFFGQSIHGEMDLNGDGLTDVTIGGLGGAALFWARDVAVVKVTWNFEPNKV 617 ARNVFECNDQVYKGKEAGEVRVCLHVQ-KSTRDRLREGGIGSVVTYDLALDSGRPHSR 617 ARNVFECNDQVYKGKEAGEVRVCLHVQ-KSTRDRLREGGIGSVVTYDLALDSGRPHSR 618 NIQKGNCRVEGKETVCINATMCFHVKLKSKEDSIYEADLQYRVTLDSLRQISR 674 AVFNETKMSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRL 734 SFFSGTQERKIQRNITVRESECIRHSFYMLDKHDFGDSVRVTL 735 SFFSGTQERKIQRNITVRESECIRHSFYMLDKHDFGDSVRVTL 736 NFSLVGTPLSAFGNLRPVLAEDAQRLFTALPFERKNGGNDNICQDDLSITFSFMSLDCLV 737 NFSLVGTPLSAFGNLRPVLAEDAQRLFTALPFERKNGGNDNICQDDLSITFSFMSLDCLV 74 NFSLVGTPLSAFGNLRPVLAEDAQRLFTALPFFERKNGGNDNICQDDLSITFSFMSLDCLV 74 NFSLVGTPLSAFGNLRPVLAEDAQRLFTALPFFERKNGGNDNICQDDLSITFSFMSLDCLV 75 NFSLVGTPLSAFGNLRPVLAEDAQRLFTALPFFERKNGGNDNICQDDLSITFSFMSLDCLV 75 NFSLVGTPLSAFGNLRPVLAEDAQRLFTALPFFERKNGGNDNICQDDLSITFSFMSLDCLV	Carbonetto,  Qy 779 VGGPRE-FNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNORSQRSWRLACESASS 837	Qy   973 VTFS	RESULT 12 A41131 lymphocyte.Peyer's patch adhesion molecule alpha 4 precursor - mouse NyAlernate names: integrin alpha-4 C;Species: Mus musculus (house mouse) C;Species: Mus musculus (house mouse) C;Date: O5-Jun-1992 #sequence_revision 05-Jun-1992 #text_change 24-Sep-1999 C;Accession: A41131; S16742 B;Neuhaus, H.; Hu, M.C.T.; Hemler, M.E.; Takada, Y.; Holzmann, B.; Weissman, I.L. J, Cell Biol. 115, 1149-1158, 1991 A;Title: Cloning and expression of CDNAs for the alpha subunit of the murine lymphocy: A;Reference number: A41131 A;Status: preliminary A;Molecule type: mRNA	A; Residues: 1-1039 <-NEU.> A; Cross-references: RMEL.> A; Cross-references: RMEL.> A; Cross-references: RMEL.> A; Cross-references: RMEL.> C; Superfamily: integrin alpha-4 chain C; Superfamily: integrin alpha-4 chain C; Keywords: cytoskeleton; transmembrane protein C; Keywords: cytoskeleton; transmembrane protein Cuery Match 11.3%; Score 663; DB 2; Length 1039; Best Local Similarity 22.7%; Pred: No. 2.3e-37; Matches 281; Conservative 187; Mismatches 403; Indels 368; Gaps 48; Cy 1 FNLDTENAMTFQ-ENARGFGQSVV-QLQGSRVVVGAPQEIVAANQRGSLYQCDY 52
1vgssvg	Sep-1999 Bach, F.; eceptor fo eceptor fo epeat homo	FNLDTENANTFQENARG-FCQSVVQLCGSRVVCAPQEDEIVAANQRGSLYQCDYSTGS 5   1   1   1   1   1   1   1   1   1	· 0 2 F X-X L-	382 FSAHYSQDWVMLGAVGAYDWNGTVVMQKANQMVIPHNTTFQTEPARMNEPLASYLGYTVN 441  394 IILRNRVQSLVLGAPRYQHIGLVAMFRQNTGWMESNANVKGTQIGAYFGASLCSVDVDSN 453  442 SATIPGDVLYIAGQPRYNHTGQVVIYKMEDGNINILQTLGGEQIGSYFGSVLTTIDIDKD 501  454 GSTDLVLIGAPHY

ع	101	FKNPNOTOTOTOTOTOTOTOTOTOTOTOTOTOTOTOTOTOTO	9
· <u>&gt;</u>			· ·
۾	161 M	:	185
<u> </u>	156 F	FVSTVMEQLKKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGV 2	215
۾	186 -	:   : : RMAPCYKDYT	195
≽	216 R	LGYEDVI PEADREGVIRYVIGVGDAF	275
ą	196 -	RKRGE	200
<b>≿</b>	276 R	SEKSRQELNTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMS 3	335
ą	201 -	CC	205
<b>≿</b>	336 0	QEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYA 3	391
ą	206 Q		263
۶.	92	AAIILRNRVQSLVLGAPRYQHIGLVAMFRQNIGMWESNANVKGTQIGAYFGASLCS 4	447
Ω	264 A	Y EMKGKKLIGS Y FGAS VCA	319
۶ ج	448 V	VDVDSNGSTDLVLIGAPHYYEQTRGGOVSVCPLPRGQRA-RWQCDAVLYGEQGQPWGRFG	506
, ;			
<u>ہ</u> ج	377 🖽	AALI V GOVAGOLALI DVALGARGEDINGGAN TERROI SGOGISSONGKRIANGALDERFELD.  E.S.	900 435
>			624
. <u>a</u>			94
à	625 D		679
ą	495 -		547
<b>≿</b>	K 089		734
ą	548 S	:	607
<b>≿</b>	735 P		787
ď	608 P	PILQQKKEKDVIRKMINFARFCAYEN-CSADLQVSAKVGFLKPYENKTYLAVGSMKTIML	999
<b>≿</b>		TVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGALKST (	847
ð	667 N		716
<b>≿</b>	848 S	a —	506
ą	717 A	ASCENEGELDQVRDNRVTLTIP	97.6
Ł	V 906	MWVTSHGV STRYLNFTASENTSRVMQHQYQVSNLGQRSLP-ISLVFL	957
ð	777 L	NLTFHVINTGISMAPNVSVKIM	834
<b>≿</b>	958 V	VPVRLNQTVIMDRPQVTFSENLSSTCHTKERLPSHSDFLAELR	1000
ą	835 V	FAQQKGIAGTLTDIVKFLSKTD	891
<b>≿</b>	1001 K	ATLKGNLSFDWYIKTSHNHLLIVSTAEIL	1058
ą	892 K	KR-LLYCMKADQHCLDFLCNFGKMESGKEASVHIQLEGRPSIL	933
λ.	1059 FI	LPGQGAFVRSQTETKVEPFEVPNP	1090
q	934 E		983

```
N.Alternate names: Cutain procursor. numman
N.Alternate names: Cutain procursor. numman
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Species: Ol-Dec-1989 #sequence revision Ol-Dec-1989 #text_change 24-Sep-1999
C;Accession: S06046; A39355; D28018
R;Takada, Y.; Elices, M.J.; Crouse, C.; Hemler, M.E.
EMBO J. 8, 1361-1368, 1989
A;Title: The primary structure of the alpha (4) subunit of VLA-4: homology to other int A;Reference number: S06046; MUID:89356603; PMID:2788572
A;Accession: S06046
A;Accession: S06046
A;Accession: S06046
A;Resenier: BIXENDERSOR DEC.
A;Resenier: CD: BIXENDERSOR DEC.
A;Cross-references: GB:X16983; EMBL:X15356; NID:g33945; PIDN:CAA34852.1; PID:g33946
B;Rosen, GD: BIXEnmahaer, TM, Dean, D.C.
Proc. Natl. Acad. Sci. U.S.A. 88, 4094-4098, 1991
A;Title: Characterization of the alpha-4 integrin gene promoter.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: GB:M62841
R;Takada, Y.; Strominger, J.L.; Hemler, M.E.
R;Takada, Y.; Strominger, J.L.; Hemler, M.E.
A;Title: The very late antigen family of heterodimers is part of a superfamily of mole A;Reference number: A94151; MUID:87204112; PMID:3033641
A;Accession: D28018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A)Cross-references: GDB:128032, OMIM:192975
A;Map position: 2q31-2q32
S;Superfamily: integrin alpha-4 chain
C;Superfamily: integrin alpha-4 chain
C;Keywords: cell adhesion: cytoskeleton; duplication; glycoprotein; heterodimer; trans F;1-39/Domain: signal sequence #status predicted <SIG>F;1-39/Domain: signal sequence #status predicted <SIG>F;40-1038/Product: integrin VLA-4 alpha-4 chain #status predicted <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         272 GDAFRSEKSRÇELNTIASKPPRD------HVFQVNNFEALKT-----IQN 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 GKTCLEERDNOWLGVTLSRQPGENGSIVTCGHRWKNIFYIKNENKLPTGGCYGVPPDLRT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              283 QIGKAYIF----SIDEKELNILHEMKGKKLGSYFGASVCAVDLNADGFSDL-LVGAPMQS 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 --FAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 ELSKRIAPCYODYVKKFGENFA-----SCOAGISSFYTKDLIVMGAPGSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        357 DWAGGVFLY---TSKEKSTFINMTRVDSDMNDAYLGYA--AAIILRNRVQSLVLGAPRYQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     226 YWTGSLFVYNITTNKYKAFLDKQNQVKF---GSYLGYSVGAGHFRSQHTTEVVGGAPQHE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 412 HIGLVAMFRONTGMWESNANV----KGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             527 APGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       468 EQTRGGQVSVCPLPRGQRARWQC-DAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels 212;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1038;
                                   1091 -LPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
10.8%; Score 633; DB 2; Lv
Best Local Similarity 25.2%; Pred. No. 2.8e-35;
Matches 248; Conservative 155; Mismatches 370;
                                                                                                                                                                                                               integrin alpha-4 chain precursor - human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Molecule type: protein
A;Mebidues: 40-50,'E',52-53 <TA2>
C;Genetics:
A;Gene: GDB:ITGA4; CD49D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  311 QLREKI----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: DNA
A; Residues: 1-93 <ROS>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Accession: A39355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
   ઠ
                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
```

OY 587 TVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQK 644	Query Match Best Local Similarity 26.5%; Pred. No. 4.5e-15; Matches · 237; Conservative 160; Mismatches 332; Indels 164; Gaps 40;
Qy 645 STRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETRNSTRRQTQVLGLTQTCETL 699  Db :	Qy 331 EHEMSQEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT-RVDSDMNDAYLG 389
KLQLPNCIEDPVSPIVLRINFSLVGTPLSAFGNLRPVLAEDAQR-LFTAL	QY 390 YAAAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGWWESNANVKGTQIGAYFGASL 445
754 NCGNDNICQDDLSITFSFMSLDCLVVGGPREFVVTVVRNDGEDSYRTQVTFFF	446 CSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRF
DD 627 FCAHEN-CSADLQVSAKIGFLKPHENKTYLAVGSMKTLMLNVSLFNAGDDAYETTLHVKL 685  QY 808 PLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNIT 867	DB 309 CAVDINGDGLSDL-LVGAPMFSEIKDEGQVIVY-INKGNGALEE-QLALIGD-GAINAHF 304  QY SO6 GAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSORIAGSKLSPRL 565  Db 346 GRSTASLDDLDNDGPDVATGAPKEDPAGAVYTYHGDAG-GTVPOVSKKISGKKINPVL 423
868 FDVDSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHQVSTKYLN 92	566 424
Qy 926 FTASENTSRVMOHQYQVSNLGQRSLP-ISLVFLVQTVIWDRPQVTFSENL 979	QY 624 NDQVVKGKEAGEVRV-CLHVQKSTRDRLREGQIQSVVTYDLALDSGRPHSRAV 675
Qy 980SSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLK 1033  Db 849 LDVQTTTGECHFENYQ	Qy 676 FNETKNSTRRQTQVLGLTQTCETLKQQLPNCIEDPVSPIVLRLNFSLVGTPLS 728
OY 1034 GNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079  DS 881 GIVRFLSKTDKRLLXCIKADPHCLNFLCNFGXMESGKEASVHIQLEGRPS-ILEMDE 936	QY 729 AFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCL 777
OY 1080 TKVEPPEVPNP	Qy 778 VVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASS 837
Qy         1104 LLALITAALYKLGFFKRQYKDMMSE 1128           Db         997 VLLLISYVMWKAGFFKRQYKSILQE 1021	QY 838 TEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMFRTNK 897
SULT 14  8409  4409  tegarin alpha-9 chain precursor - humar Species: Homo sapiens (man)  Date: 02-Jul-1996 #sequence_revision (Accession: IS8409; A49459  Accession: IS8409; A49459  Title: Aberrant upregulation of a nove Reference number: IS8409; MUID:941196 (Accession: IS8409 mulp:941196 (Accession: Bealmary; translated from (Molecule type: mRNA Molecule type: mRNA Call Biol. 123, 1289-1297, 1993  Title: Sequence and tissue distributic Reference number: A49459; MUID:9406478 Accession: A49459  Status: preliminary  Molecule type: mRNA Molecule type: mRNA Accession: A49459; MUID:9406478 Accession: A49459  Status: preliminary  References: GB:L24158  Superfamily: integrin alpha-4 chain Superfamily: integrin alpha-4 chain 1-27/Domain: signal sequence #status is	Oy 898 TEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMOHOY 940

.

```
-----VIFSENLSSICHTKERLPSHSDFLAELRKAPVV 1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1006 NCSIAVCQRIQCDIPFFFGIQEEFNAT-----LKGNLSFDWYIKTSHNHLLIVSTAEILF 1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1060 NDSVFTLLPGQGAFVRSQTETKVE--PFEVPNP----------LP------ 1092
A; Description: Alpha SU2, a sea urchin integrin which binds laminin.
A; Reference number: 221035
A; Reference number: 221035
A; Accession: 131437
A; Accession: 131437
A; Molecule itype: mRNA
A; Residues: 1-1041 (*HER.)
A; Cross-references: ENBL: AF067658
A; Experimental source: developmental stage embryo
A; Experimental source: developmental stage embryo
C; Function: A; Description: binds laminin
C; Superfamily: integrin alpha-2b chain
                                                                                                                                                                                                                                              41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            923 YL------INFTASENTSRVMOHOYQV----SNLGQRSLPIS-----LVFLVPV 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     835 MTEEGVTCQLTQGKANPEGVKLEPSTŘAKLSNSTTQVSGRKRREPEVAEALAQTDN--VI 892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        718 GDKDSIEFYFKABSENS--BDPNTLENNELNMTVPVTVDCTLKLLSASYPEIVMYSTQED 775
                                                                                                                                                                                                                                                                              336 OEGFSAAITSNGP--LLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDS----DMNDAYLG 389
                                                                                                                                                                                                                                                                                                                                                                    297 VVDI-NNDTYDDLLVGAPMYMDDGPAIQ------RWEAGAVYVYLQNPDVGPGA 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSV---- 658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCGNDNICQDDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSY 813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      610 NCVN-NICIPDLDVIVIT-PNLFNIVIGQTQELTLDVSLANRGEDAFQSSLSVYYPLGLQF 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RKVSTLQNQRSQRSWRLACESASSTEVSGALKSTSCSINHPIFPEN-----SEVTFNIT 867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        668 VRL----ERKANMDFSVTCSEDSD-----LRIITCDTGNPMVGKNILEFGLTLSTFQVS 717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          868 FDVDS-----KASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTK 922
                                                                                                                                                                                                                                                                                                                                                390 YAAAI--ILRNRVQSLVLGAPRYQHI-GLVAMFRQNTGMWESNANVKGTQIGAYFGASLC 446
                                                                                                                                                                                                                                                                                                                                                                                                                    447 SVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQ----- 498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GISPSHSQRIAGSKLS-PRLQYFGQSLSGGQDLTWDGLVQTAQ--GHVLLLRSQPVL 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ------VTYDLALDSG-RPHSRAVFNETKNSTRRQTQVLGL-TQTCETLKLQ 702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LPNCIEDPVSPIVLRINF$LVGTPLSAFGN-----LRPVLAEDAQRLFTALFPFEK 753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          --DEINASKSKVVRILGRF---W-----ERTF
                                                                                                                                                                                                                                                                                                   -----GOPWGREGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGS
                                                                                                                                                                                                         Query Match
Best Local Similarity 24.8%; Pred. No. 5.4e-34;
Matches 236; Conservative 155; Mismatches 314; Indels 245; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           463 SLDATLNTEP------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 961 RLNQTVIWDRPQ-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     893 YCASDSCVLINCTI---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6 6 6 6 6 6 6 6 6 6
                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 6 8 6 8 6 8
```

Search completed: November 25, 2003, 14:22:09 Job time : 19.9579 secs

34 494 8.4 1396 35 491.5 8.4 1146 36 489.5 8.3 1035 37 489 8.3 1025	489 8.3 486 8.3	469.5 8.0 466 7.9 445.5 7.6	423 /.2 383 6.5		SULT 1 AM HUMAN			DE SUDUNIT) (CR-3 alpha chair of Course of Neutrophil adherence recign ITGAM OR CR3A OR CD11B.		Manufalla; Buchella; NCBI TaxID=9606; [1] SEQUENCE FROM N.A.		RT "The numan leukocyte adne RT type 3, CD11b) alpha subu		RN [2] RP SEQUENCE FROM N.A.			RI homology to the alpha suk			RA Arnaout M.A., Gupta S.K., RT "Amino acid sequence of t	RT receptor Mol (complement Pr. T Cell Riol 106.213-21	[4]			RT the alpha-integrin gene f	evolution.";			Hickstein D.D., H	Roth G.J.; "cDNA sequence	RT adherence receptor indica RL Proc. Natl. Acad. Sci. U	[9]
igen Ltd.		; Search time 9.17418 Seconds (without alignments) 5828.244 Million cell updates/sec	FKRQYKDMMSEGGPPGAEPQ 1137			127863				l by chance to have a the result being printed, e distribution.			Description	P11215 homo sapien P05555 mus musculu	homod	P20701 homo sapien		P38570 homo sapien P56199 homo sapien	Q9ukx5 homo sapien P53710 bos taurus			เลยา	P13612 homo sapien Q13797 homo sapien		mus .			PAGE 1 TOWN DEFICE PAGE 1 TOWN	homo sa	P26007 gallus gall P06756 homo sapien	739	Q61738 mus musculu
ore version 5.1.6 993 - 2003 Compugen	g sw model	14:09:04		xt 0.5	6705 residues	chosen parameters:		0% 100% 45 summaries		results predicted by to the score of the of the total score d	SUMMARIES		QI	ITAM HUMÁN ITAM MOUSE	ITAX_HUMAN	ITAL HUMAN	ITAL MOUSE ITAE MOUSE	ITAE HUMAN ITAI HUMAN	ITAH_HUMAN ITA2_BOVIN	ITA2_MOUSE	ITAG_HUMAN		ITA4 HUMAN ITA9 HUMAN	ITA4 XENLA	ITA3 MOUSE	ITAS MOUSE ITAS XENLA	ITAV_CHICK	ITAV MOUSE	ITA3_HUMAN	ITA6_CHICK ITAV_HUMAN	ITAB_CHICK ITA6_MOUSE	ITA7_MOUSE
GenCorr Copyright (c) 1993	OM protein - protein search, using	Run on: November 25, 2003,	Title: US-09-902-481B-6 Perfect score: 5875 Sequence: 1 FNLDTENAMIFQENARGFGQ	Scoring table: BLOSUM62 Gapop 10.0 , Gapext	segs,	Total number of hits satisfying c	Minimum DB seq length: 0 Maximum DB seq length: 200000000	Post-processing: Minimum Match 0% Maximum Match 10 Listing first 45	Database : SwissProt_41:*	Pred. No. is the number of score greater than or equal and is derived by analysis	,	Query	Score	5852.5 99.6 1152 1 4476 76.2 1153 1	3473 59.1 1163 1	1552.5 26.4 1170 1	1157.5 19.7 1167 1	1149 19.6 1179 1 1102.5 18.8 1151 1	0 1093.5 18.6 1189 1 1 1084 18.5 1170 1	1 1072 18.2 1178 1 L 18.1 L 18.1 L	4 1065.5 18.1 1167 1	6 663 11.3 1039 1	7 633 10.8 1038 1 8 630 10.7 1035 1	9 593.5 10.1 1032 1	1 567.5 9.7 1053 1	3 546.5 9.3 1050 1	4 543.5 9.3 1034 1 c c 2 1120 1	6 535 9.1 1044 1	8 531.5 9.0 1066 1	9 530.5 9.0 1072 1 0 526 9.0 1048 1		498 8.5

drosophila	drosophila	homo sapien	homo sapien	mus musculu	cavia porce	homo sapien	rattus norv	caenorhabdi	caenorhabdi	drosophila	drosophila
P12080	024247	P08514	P53708	Omnb60	P11578	013683	Q63258	P34446	003600	044386	Q9w1m8
ITA2_DROME	ITA1 DROME	ITAB HUMAN	ITA8 HUMAN	ITAB MOUSE	ITAM CAVPO	ITA7 HUMAN	ITA7 RAT	PAT2 CAEEL	INA1 CAEEL	ITA3 DROME	ITAS_DROME
н	-	٦	-	-	-	н	-	~1	-	-	-
1396	1146	1039	1025	1033	126	1181	1106	1226	1139	1115	1000
4.	8.4	8.3	8.3	8.3	8.3	9.0	8.0	7.9	7.6	7.2	6.5
494	491.5	489.5	489	489	486	472	469.5	466	445.5	423	383
34	35	36	37	38	39	40	41	42	43	44	45

## ALIGNMENTS

```
This SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE-98226734; PubMed=9560195;

Oxvig C., Springer T.A.;

Experimental support for a beta-propeller domain in integrin alpha-
Subunits and a calcium binding site on its lower surface.";

Function: INTEGRIN ALPHA-M/BETA-2 IS IMPLICATED IN VARIOUS
ADHESIVE INTERACTIONS OF MONOCYTES, MACROPHAGES AND GRANILOCYTES
AS WELL AS IN MEDIATING THE UPTARE OF COMPLEMENT-COATED PARTICLES.

IT IS IDENTICAL WITH CR.3. THE RECEPTOR FOR THE IC3B FRACHENT OF
THE THIRD COMPLEMENT COMPONENT. IT PROBABLY RECOGNIZES THE R-G-D
PEPTIDE IN C3B. INTEGRIN ALPHA-M/BETA-2 IS ALSO A RECEPTOR FOR
FIRENDOGEN FACTOR X AND ICAMI. IT RECOGNIZES PI AND P2 PEPTIDES
OF FIBENDOMEN CHAIN.

C.-- SUBUNIT. HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-M
ASSOCIATES WITH BETA-2

--- SUBCELLULAR LOCATION: TYPE I membrane protein.

C.-- SUBCELLULAR LOCATION: TYPE I membrane protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN: THE INTEGRIN I DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
SIMILARITY: CONTAINS I VWFA domain.
SIMILARITY: CONTAINS I VWFA domain.
SIMILARITY: CONTAINS I PGG-GF repeats.
DATABASE: NAME=PROW; NOTE=CD guide CD11b entry;
WWW="http://www.ncbi.nlm.nih.gov/prow/cd/cdl1b.htm".
                                                                                                                                                                                                                                                                                                                       Lee J.O., Rieu P., Arnaout M.A., Liddington R.;
"Crystal structure of the A domain from the alpha subunit of integrin CR3 (CD11b/CD18).";
Cell 80:631-638(1995).
                                                                                                                                                                                                                                                                                                                                                                                                X-RAY CRYSTALLOGRAPHY (2.0 ÅNGSTROMS) OF 148-334.
MEDINE=5633671; PubMed=8747460;
Lee J.O., Bankston L.A., Arphaout M.A., Liddington R.C.;
"Two conformations of the integrin A-domain (I-domain): a pathway for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             X-RAY CRYSTALLOGRAPHY (2.7 ANGSTROMS) OF 148-337.
MEDLINE=98362595; PubMed=9687375;
Baldwin E.T., Sarver R.W., Bryant G.L. Jr., Curry K.A.,
Fairbanks M.B., Finzle, C., Garlick R.L., Heinrikson R.L.,
Horton N.C., Kelley L.L., Mildner A.M., Moon J.B., Mott J.E.,
Mutchler V.T., Tomich C.S., Matenpaugh K.D., Wiley V.H.;
"Cation binding to the integrin CD11b I domain and activation model
                                                                                                                                                                                               SEQUENCE OF 17-31.
MEDLINE=87076671; PubMed=3539202;
Pierce M.W., Remold-O'Donnell E., Todd R.F. III, Arnaout M.A.;
"N-terminal sequence of human leukcyte glycoprotein Mol:
conservation across species and homology to platelet IIb/IIIa.";
Biochim. Biophys. Acta 874:368-371(1986).
SEQUENCE OF 1-9 FROM N.A.

MEDLINE=92073318; PubMed=1683702;
Shelley C.S., Arnaout M.A.;
The promoter of the CD11b gene directs myeloid-specific and developmentally regulated expression.";
Proc. .Natl. Acad. Sci. U.S.A, 88:10525-10529(1991).
                                                                                                            TISSUE-Blood;
MEDLINE-92144986; PubMed-1346576;
MEDLINE-92144986; PubMed-1346576;
MEDLINE-9214000 A. G., Tenen D.G.;
"Characterization of the myeloid-specific CD11b promoter.";
Blood 79:865-870(1992).
                                                                                                                                                                                                                                                                                                 X-RAY CRYSTALLOGRAPHY (1.7 ANGSTROMS) OF 148-331.
MEDLINE=95171458; PubMed=7867070;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Structure 3:1333-1340(1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Structure 6:923-935(1998).
                                                                                                 SEQUENCE OF 1-9 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GRANULOCYTES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         activation?"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 assessment.
                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                     8
```

```
between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@lsb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MIM: 120980;

R GO; GO: 0008305; C: integrin complex; TAS.

R GO; GO: 0008305; C: integrin complex; TAS.

R GO; GO: 0008305; C: integrin alpha.

InterPro; IPR002035; VWF.A.

R InterPro; IPR002035; VWF.A.

R Pfam; PF003183; RG-GAP; 3.

R Pfam; PF003183; RG-GAP; 3.

R PRINTS; RR01185; Integrin.A; 1.

R RRINTS; RR01085; Integrin.A; 1.

R SMART; SM00191; Int. alpha; 4.

R SMART; SM00191; Int. alpha; 4.

R RROSITE; PS00242; INTEGRIN ALPHA; 1.

R PROSITE; PS00244; WRPA; 1.

W Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INTEGRIN ALPHA-M.
EXTRACELLULAR (POTENTIAL).
POTENTIAL.
CYTOPLASMIC (POTENTIAL).
FG-GAP 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Signal; 3D-structure; Repeat; Magnesium; Calcium. SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED.
JOINED
                                                                                                                                                                           EMBL; J03925; AAA59544.1; -.
EMBL; M18044; AAA59491.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAB24821.1; U
AAB24821.1; U
AAB24821.1; U
AAB24821.1; U
AAB24821.1; U
                                                                                                                                                                                                                          AAB24821.1; -AAB24821.1; -AAB24821.1; JAB24821.1; JAB24821.1; J
                                                                                                                                                                                                                                                                                                                          AAB24821.1;
AAB24821.1;
AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                                                          AAB24821.1;
AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAB24821.1;
AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                                        AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAB24821.1;
AAB24821.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAB24821.1
AAB24821.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genew, HGNC:6149; ITGAM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAB24821.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1152
1104
1128
1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S52212;
S52213;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S52219;
                                                                                                                                                                                                                                                                                                                            $52154;
$52155;
$52157;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S52189;
S52191;
                                                                                                                                                                                                                                                                                                                                                                                                   S52159;
S52161;
S52164;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         $52216;
                                                                                                                                                                                                                                                         S52227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S52169;
S52170;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S52192;
                                                                                                                                                                                                                                                                                                     852153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              $52173;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S52184;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S52174;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S52181;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S52165;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TRANSMEM
DOMAIN
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                      EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
EMBL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHAIN
                                                                                                                                                                                                                               EMBL;
```

This SWISS-PROT entry is copyright.	88	FLAELRKAPVVNCSIAVCQRIQCDIP 1035	976 KLNQTVIWDRPQVIFSENDSSTCHTKERLPSHSDI	a S
	ខម		961 RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP	δi
<del>!</del>	388	ISHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 975	916 QLELPVKYAVYMVTSHGVSTKYLNFTASENTSR	QO
-	388	TSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVPLVPV 960	901 QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRV	ολ
ASSOCIATES WITH BEIN-2!- SUBCELLULAR LOCATION: Type I memb	386		856 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKA	qq
<del>:</del>	386	IPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRINKTEF 900	841 SGALKSTSCSINHDIFPENSEVTFNITFDVDSKAK	ò
RESPONSE TO A IMPAIRED DEGRANULAT APPARENTLY ACCELERATE APOPTOSIS I	888			qq
	388	KVSTLONORSORSWRLACESASSTEV 840	781 GPREFNVTVTVRNDGEDSKRTOVTFFFFLDLSYR	ò
	ខ្លួន		SLVGTPLSAFGNLR	qa
	ខខ	CGNDNICQDDLSITFSFMSLDCLVVG 780	721 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKN	ò
	ខម		676 YDLALDSGRPHSRAVFNETRNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRINF	g
	ខ្ល	TCETLKLOLPNCIEDPVSPIVLRLNF 720	661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQT	ò
Nature 314:540-542(1985). -!- FUNCTION: INTEGRIN ALPHA-M/BETA-2	를 있 (		616 PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGE	QQ
	RT	EVRVCLHVQKSTRDRLREGQIQSVVT 660	601 PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT	ò
	X			a
	X X O	GODLTWOGLVDLTVGAQGHVLLLRSQ 600	541 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGC	δ
•	F. 75		PRG-RARWQCDAVLY	. q
	R. R.T.	VNGDKLTDVAIGAPGEEDNRGAVYLF 540	481 PRGORARWOCDAVLYGEOGOPWGRFGAALTVLGDV	ò
	2	STDLVLIGAPHYYEQTRGGQVSVCPL 480	421 ONTGMWESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEOGYRGGOVSVCPL 	<i>≿</i> 8
	R R	ILRNRVQSLVLGAPRYQHIGLVAMFR 436	377 GVFLYTSKEKSTFINMTRYDSDMNDAYLGYAAAI	Ор
	RR	ILRNRVQSLVLGAPRYQHIGLVAMFR 420	361 GVFLYTSKEKSTFINMTRÜDSDMIDDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR	ò
"Amino acid sequence of the murine Ma	<b>5</b>	SQEGFSAAITSNGPLLSTVGSYDWAG 376	317 NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEM	q
	3 X 2	SQEGFSAAITSNGPLLSTVGSYDWAG 360	301 NPEALKTIONOLREKIPAIEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG	ò
	N N N		TDGEKFGDPLGYED	අ
	888			
BUDUNIC) (CK-3 Alpha Chain) (CDILD) (ITGAM MAS MUSCUlus (Mouse)	3 8 8		191 KIHFTEREDUNDNDERSLUKETOLIGERENTATIONEKUTKELININGAKKAAFKILVUL 197 KIHFTEREDUNDNDELSLUKETOLIGERHAGIRKKVERENTITAGARKAAFKILVUL	÷ 8
28-FEB-2003 (Rel. 41, Last annotation Integrin alpha-M precursor (Cell surf	점점			gg ,
01-FFR-1991 (Rel. 09, Created)	425	DGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF 180	121 FPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRMKE	δ
ITAM MOUSE ID TRAM MOUSE STANDARD; PRT; 1 AC DACEER.	E O Z			qa
RESULT 2	RES	CGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120	61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHC	ò
1096 KVEPFEVPNPLPLIVGSSVGGLLLLALI	qq	RAGFGOSVVQLOGSRVVVGARQELYAANORGSLYQCDXSTGSCEFT 60  RAGFGOSVVQLOGSRVVVGARQELVAANORGSLYQCDXSTGSCEFT 76	1 FILL TENANTE PERANGEGOS VOLGGES VOUGEN 17 FILL	à 8
1081 KVEPFEVPNPLPLIVGSSVGGLLLLALI	ò		a)	Mat
1036 FFGIQEEFNATLKGNLSFDWYIKTSHNH	3 8	DB 1; Length 1152;	Ouery Match 99.6%; Score 5852.5; Best Local Similarity 99.6%; Pred. No. 0;	One
HNRSTXIXMUSS INCX IT WAS BOILDED 1001	è	_	-	

```
This SWISS-PROT entry is copyright. It is produced through a collaboration
HHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CYTES, MACROPHAGES AND GRANULOCYTES
DCYTES, MACROPHAGES AND GRANULOCYTES
THEAKE OF COMPLEMENT-COATED PARTICLES.
HE RECEPTOR FOR THE ICL3B FRAGMENT OF
IT. IT PROBABLY RECOGNIZES THE R-G-D
IA-M/BETA-2 IS ALSO A RECEPTOR FOR
IL IT RECOGNIZES PI AND P2 PEPTIDES.
PHA-M/BETA-2 PLAY A CRITICAL ROLE IN
IMMUNE COMPLEX-MEDIATED
INMUNE COMPLEX-MEDIATED
RESSING A NULL MITATION OF THE ALPHA-M
RESSING A NULL MITATION OF THE ALPHA-M
HEASE IN NEUTROPHIL ACCUMULATION, IN
IULATION AND PHAGOCYTOSIS, EVENTS THAT
                                                                                          INSERT) IS A VWFA DOMAIN. INTEGRINS
ROTEASE CLEAVAGE.
GRIN ALPHA CHAIN FAMILY.
                                                                                                                                                                                                                                                                                                                            update)
on update)
rface glycoprotein MAC-1 alpha
(Leukocyte adhesion receptor MO1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mac-1 alpha chain reveals homology itional domain related to von
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .T.A.;
te Alpha subunit of the mouse
ular adhesion molecule Mac-1.";
44-5648(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ata; Vertebrata; Euteleostomi;
ognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mbrane protein.
LY EXPRESSED IN MONOCYTES AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   on to leukocyte interferon.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A AND A BETA CHAIN. ALPHA-M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W.J.;
Mac-1 leukocyte adhesion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Dreyer W.J., Gee C.E.,
T.A.;
                                                                                                                                                                                                                                                          1153 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             epeats.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       y
```

RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK

us-09-902-481b-6.rsp

ď

```
between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                    EMBL; X07640; CAA30479.1; -.

R EMBL; M1493; AAA39484.1; -.

R HSRP; S00551; S00551.

R HSRP; P11215; 1A8X.

R MGD; MGI: 96607; Itgam.

InterPro; IPR000213; VWF A.

R InterPro; IPR0020315; VWF A.

R Pfam; PF001839; FG-GAP; 3:

R Pfam; PF001839; VWA. 1.

R Pfam; PF001839; VWA. 1.

R PRINTS; PR01185; INTEGRINA.

R SMART; SM00191; Int alpha; 5.

R SMART; SM00191; Int alpha; 5.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00242; VWA; 1.

R PROSITE; PS00242; VWA; 1.

W Integrin, Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INTEGRIN ALPHA-M.
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            POTENTIAL.
CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       178DB988AECB0343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GLCNAC. .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIMILARITY.
SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL
GFFKR MOTIF.
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL. POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FG-GAP
FG-GAP
FG-GAP
FG-GAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AA; 127480
                                                                                                                                                                                                                                                                                                                                                                                                                     Integrin, Cell adhesion
Signal, Calcium, Repeat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1045
1051
1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1153
1105
1129
1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   123
711
776
1023
1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          980
994
1022
1045
1051
1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17
1106
1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIGNAL
CCHAIN
DOMAIN
TRANSMEM
DOMAIN
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
```

1080 1036 a a ઠે ઠે 7 9 16 FNLDTENAMTFQENARGRGOSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI Gaps 7 tch 76.2%; Score 4476; DB 1; Length 1153; al Similarity 74.3%; Pred. No. 1e-294; 845; Conservative 142; Mismatches 149; Indels 2

17

ò g

Local

Best Loc Matches

1079 1095 960 VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019 959 615 720 899 9 99 675 735 780 795 839 540 555 855 136 180 196 256 300 316 360 420 436 480 496 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG TLVGEPLRSFGNLRPVLAMDAQRFFTAMFPFEKNCGNDSICQDDLSITMSAMGLDTLVVG FQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVP 1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRL-ACESASSTE TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN NPEALKTI QNOLREKI PA I EGTOTGSSSSFEHEMSQEGPSAAITSNGPLLSTVGSYDWAG HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT FPEALRECPQQESDIVFLIDGSGSINNIDFQKWKEFVSTVMEQFKKSKTLFSLMQYSDEF QNTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL PREQRARMQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF 437 197 929 661 781 900 916 121 137 181 241 257 301 317 361 377 421 481 497 541 601 721 961 유 셤 ò a ò 셤 ઠે 용 셤 a ઠે 셤 ठे 요 ઠે 음 8 셤 δ 8 જે 셤 8 엄 ઠે g ઠે 셤 ઠે ઠે ò

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license parement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=87167596; PubMed=3549901;
MEDLINE=87167596; PubMed=3549901;
Miller L.J., wiebe M., Springer T.A.;
Miller L.J., wiebe M., Springer T.A.;
"Purification and alpha subunit N-terminal sequences of human Mac-1
and pl50,95 leukocyte adhesion proteins.";
J. Immunol. 138:2381-2383 (1987).
-!- FUNCTION: INTEGRIN ALPHA-X/BETA-2 IS A RECEPTOR FOR FIBRINOGEN. IT
RECOGNIZES THE SEQUENCE G-P-R IN FIBRINOGEN. IT MEDIATES CELL-CELL
INTERACTION DURING INFLAMMATORY RESPONSES. IT IS ESPECIALLY
IMPORTANT IN MONOCYTE ADHESION AND CHEMOTAXIS.
-!- SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-X
ASSOCIATES WITH BETA-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GRANULOCYTES.

-- DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS
--- SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
--- SIMILARITY: Contains 1 VWFA domain.
--- SIMILARITY: Contains 7 FG-GAP Feperate.
--- DATABASE: NAME-PROW; NOTE-CD guide CD11c entry;
--- DATABASE: NAME-PROW; NOTE-CD guide CD11c entry;
--- WWW="http://www.ncbi.nlm.nih.gov/prow/cd/cd11c.htm".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.

MEDLINE=8816645; PubMed=3327687;

Corbi A.L., Miller L.J., O'Connor K., Larson R.S., Springer T.A.;

"CDN cloning and complete primary structure of the alpha subunit of an leukocyte adhesion glycoprotein, p150,95.";

EMBO J. 6:4023-4028(1987).
                                                                                                                01-FEB-1991 (Rel. 17, Last sequence update)
15-SEP-2003 (Rel. 42, Last sequence update)
Integrin alpha-X precursor (Leukocyte adhesion glycoprotein p150,95
alpha chain) (Leukocyte adhesion receptor p150,95) (CD11c) (Leu MS).
ITGAX OR CD11C
                                                                                                                                                                                                                                                                                              Homo sapiens (Human).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBCELLULAR LOCATION: Type I membrane protein.
TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN MONOCYTES AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Corbi A.L., Garcia-Aguilar J./ Springer T.A.;
"Genomic structure of an integrin alpha subunit, the leukocyte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Corbi A.L., Garcia-Aguilar J., Springer T.A.; J. Biol. Chem. 265:12750-12751(1990).
                                    PRT; 1163 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                p150,95 molecule.";
J. Biol. Chem. 265:2782-2788(1990)..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; M29165; -; NOT ANNOTATED CDS.
EMBL; M29487; AAA51620.1; ALT SEQ.
EMBL; M29482; AAA51620.1; JOINED.
EMBL; M29483; AAA51620.1; JOINED.
EMBL; M29484; AAA51620.1; JOINED.
EMBL; M29485; AAA51620.1; JOINED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. MEDLINE=90153906; PubMed=2303426;
                                                                                                 01-FEB-1991 (Rel. 17, Created)
01-FEB-1991 (Rel. 17, Last seq
15-SEP-2003 (Rel. 42, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; M81695; AAA59180.1; -.
                                    STANDARD;
                                HUMAN
                                11AX HUM
P20702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ERRATUM
ITAX HUMAN
                                                                    DDDRRESSE REPRESENTATION OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF TH
```

```
61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20 FNLDTEELTAFRVDSAGFGDSVVQYANSWVVVGAPQKITAANQTGGLYQCGYSTGACEPI 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
9
                                                                                                                                                                               SMART; SM00191; Int_alpha; 5.
SMART; SM00327; VWA; 1.
PROSITE; PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane; Signal; Magnesium; Calcium; Repeat; 3D-structure.
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
S9.1%; Score 3473; DB 1; Length 11
Best Local Similarity 61.3%; Pred. No. 7.8e-227;
Matches 692; Conservative 138; Mismatches 293; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6C4E19CC3F62A473 CRC64;
                                             MIM; 151510; -:
GO; GO:0008305; C:integrin complex; TAS.
GO; GO:0004895; F:cell adhesion receptor activity; TAS.
GO; GO:0004397; F:receptor activity; TAS.
GO; GO:0007397; P:histogenesis and organogenesis; TAS.
InterPro; IPR00413; Integrin_alpha.
InterPro; IPR02235; VWF_A.
                                                                                                                                                                                                                                                                         EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                      POTENTIAL.
CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                              BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINED (GLCNAC.
N-LINED (GLCNAC.
N-LINED (GLCNAC.
N-LINED (GLCNAC.
N-LINED (GLCNAC.
N-LINED (GLCNAC.
N-LINED (GLCNAC.
N-LINED (GLCNAC.
N-LINED (GLCNAC.
N-LINED (GLCNAC.
N-LINED (GLCNAC.
N-LINED (GLCNAC.
N-LINED (GLCNAC.
N-LINED (GLCNAC.
N-LINED (GLCNAC.
N-LINED (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -> A (IN REF. 2)
-> D (IN REF. 2)
                                                                                                                                                                                                                                                                INTEGRIN ALPHA-X
                                                                                                                                                                                                                                                                                                                                                                                                                          POTENTIAL.
GFFKR MOTIF.
                                                                                                                                                                                                                                                                                                                                                                                                                POTENTIAL
                                                                                                                                                                                                                                                                                                                                                      FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
                                                                                                                                                                                                                                                                                                                        FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                      POTENTIAL
                                                                                                                                                                                                                                                                                                                                              FG-GAP 3
                                                                                                                                                                                                                                                                                                              FG-GAP
EMBL; M29486; AAA51620.1; JOINED.
PIR; A36584; RWHUIC.
PDB; IN3Y; 18-FEB-03.
Genew; HGNC:6152; ITGAX.
MIM; 151510; -:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            127885 MW;
                                                                                                                         Pfam; PF01839; FG-GAP; 3.
Pfam; PF00357; integrin_A; 1.
Pfam; PF00092; vwa; 1.
                                                                                                                                                         PRINTS; PR01185; INTEGRINA.
PRINTS; PR00453; VWFADOMAIN
                                                                                                                                                                                                                                                                1163
1107
1128
1163
87
                                                                                                                                                                                                                                                                                                                                                                                                  474
538
601
1135
                                                                                                                                                                                                                                                                                                                                                                                                                                                         126
712
777
777
863
1022
1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
89
392
697
735
899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      490
756
                                                                                                                                                                                                                                                                                                                                   351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               939 93
1050 105
490 45
756 75
                                                                                                                                                                                                                                                                                      1108
                                                                                                                                                                                                                                                                                                                                   165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
CARBOHYD
CONFLICT
                                                                                                                                                                                                                                                                CHAIN
DOMAIN
TRANSMEM
DOMAIN
REPEAT
REPEAT
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                             REPEAT
REPEAT
CA_BIND
CA_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                          CA_BIND
SITE
                                                                                                                                                                                                                                                                                                                                                         REPEAT
                                                                                                                                                                                                                                                                                                                                                                    REPEAT
    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
```

St John T.,

FROM

633-666; 788-834 AND 910-1125

FROM N.A.

Euteleostomi;

Craniata; Vertebrata; Eutele Catarrhini; Hominidae; Homo

Chordata; (Primates; (

sapiens (Human)

(CD11d) (ADB2)

â

į

ò d ò g ò d ò g ò 셤 ò g ò g ò

δ 셤

```
MEDLINE=96257216; PubMed=8666289; Wong D.A., Davis E.M., LeBeau M., Springer T.A.; Cloning and chromosomal localization of a novel gene-encoding a human beta 2-integrin alpha subunit."; General 1:291-294(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=99059842; PubMed=9841932; Grayson M.H., Van der Vieren M., Sterbinsky S.A., Michael Gallatin W., Hoffman P.A., Staunton D.E., Bochner B.S.; alphadbeta2 integrin is expressed on human eosinophils and functions as an alternative ligand for vascular cell adhesion molecule 1
                                                                                                                                                                                                                         MEDINE-20187620; PubMed=10722744;
Noti J.D., Johnson A.K., Dillon J.D.;
"Structural and functional characterization of the leukocyte integrin gene CD11d. Essential role of Spl and Sp3.";
J. Biol. Chem. 275:8959-8969(2000).
                                                                                                                                                    Staunton D.E., Gallatin W.M.;
"A novel leukointegrin, alpha d beta 2, binds preferentially to ICAM-
                                                                                                     TISSUE-Spleen;
MEDLINE=96111956; PubMed=8777714;
Wan der Vieren M., Le Trong H., Wood C.L., Moore P.F.,
Staunton D.E., Gallatin W.M.;
Staunton D.E., Terrin aloha d beta 2, binds preferent
Integrin alpha-D precursor (Leukointegrin alpha
                                                                                                                                                                                                                                                                                                               SEQUENCE OF 467-537; 571-602;
                                                                                                                                                                                       [mmunity 3:683-690(1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INTERACTION WITH VCAMI.
                                                                                                                                                                                                                                                                                                                                                                                                            INTERACTION WITH VCAM1
                                       Eukaryota, Metazoa;
Mammalia, Eutheria;
NCBI TaxID=9606;
                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                   SEQUENCE OF 1-235
  VRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PSFSVQEELDFTLKGNLSFGWVRQILQKKVSVVSVAEITFDTSVYSQLFGQEAFWRAQTT 1094
                                                                     300
                                                                                                                                               377
                                                                                                                                                                             420
                                                                                                                                                                                                       437
                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                            497
                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                556
                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                     919
                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                          676
                                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               914
                                          257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TLVGKPLLAFRNLRPMLAALAQRYFTASLPFEKNCGADHICQDNLGISFSFPGLKSLLVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOGTWSTSCRINHLIFRGGAQITFLATFDVSPKAVLGDRLLLTANVSSENNTPRTSKTTF
                                                                                                                                                                                                                                                                                                                                                            SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          797 SNLELNAEVMVMNDGEDSYGTTITFSHPAGLSYRYVAEGOKOGOLRSLHLTCDSAPVG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QLELPVKYAVYMVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                   HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                 PVLRVKAIMEFNPREVARNVFECNDOVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                       NFEALKTIONOLREKIFAIEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                             GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVOSLVLGAPRYOHIGLVAMFR
                                                                                                                                                                                                                                 QNTGMWESNANVKGTQIGAÝPGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                       PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                  RIHFTFKEFONNPNPRSLVKPITOLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                  318
                                                                                                                                                                                                                                                                                                                                                                       557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1095
                                                                                                                                                                                                                                                            438
                                                                                                                                                                                                                                                                                                                  498
                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                             617
                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         975
                                                                     241
                                                                                              258
                                                                                                                         301
                                                                                                                                                                               361
                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                       481
```

g

g ò g ઠે g ઠે g

ò

g ò g ð 8

8

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                    J. Immunol. 163:1984-1990(1999).
-!- FUNCTION: INTEGRIN ALPHA-D/BETA-2 IS A RECEPTOR FOR ICAM3 AND VCAM1. MAY PLAY A ROLE IN THE ATHEROSCLEROTIC PROCESS SUCH AS CLEARING LIPOPROTEINS FROM PLAQUES AND IN PHAGOCYTOSIS OF BLOODBORNE PATHOGENS, PARTICULATE MATTER, AND SENESCENT ERYTHROCYTES
MEDLINE=99370002; PubMed=10438935; Vazeux R., Hoffman P.A Van der Vieren M., Crowe D.T., Hoekstra D., Vazeux R., Hoffman P.A Garyson M.H., Bochner B.S., Gallatin W.M., Staunton D.E.; The leukocyte integrin alpha D beta 2 binds VGM-1: evidence for binding interface between I domain and VGM-1.",
                                                                                                                                                                                                                                                                                                                                                                                               HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                send an email to license@igb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; U37028; AAB38547.1; -.
                                                                                                                                                                                                                                                                                                                                                                  FROM THE BLOOD
                                                                                                                                                                                                                                                                                                                                                                                                      SUBUNIT:
```

ITAD HUMAN STANDARD; PRT; 1162 AA. 10 1/AD. HUMAN STANDARD; PRT; 1162 AA. 13349; Q15575; Q15576; Created) DT 16-OCT-2001 (Rel. 40, Last sequence update) DT 28-FEB-2003 (Rel. 41, Last annotation update)

R., Hoffman P.A.

Exp. Med. 188:2187-2191(1998)

```
181
                                                                                                                                                           197
                                                                                                                                                                                  241
                                                                                                                                                                                                         257
                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          973
                                                                                    121
                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                       377
                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                      437
                                                                                                                                                                                                                                                                                                                                                                                                    497
                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                   557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             913
                                                             셤
                                                                                                       셤
                                                                                                                                    ò
                                                                                                                                                                                ò
                                                                                                                                                                                                      g
                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                     8
                                                                               (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1162;
                                                                                                                                                                                                                                                                                                                                                                                                CYTOPLASMIC (POTENTIAL).
FG-GAP 1.
FG-GAP 2.
VWFA.
FG-GAP 4.
FG-GAP 4.
FG-GAP 5.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
POTENTIAL.
POTENTIAL.
POTENTIAL.
POTENTIAL.
POTENTIAL.
POTENTIAL.
POTENTIAL.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                     POTENTIAL:
INTEGRIN ALPHA-D.
EXTRACELLULAR (POTENTIAL)
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 3417; DB 1;
Pred. No. 4.8e-223;
EWBL; U40274; AAB60634.1; --
EWBL; U40275; AAB60635.1; --
EWBL; U40276; AAB60636.1; --
EWBL; U40277; AAB60637.1; --
EWBL; U40279; AAB60638.1; --
EWBL; U40279; AAB60638.1; --
EWBL; U40279; AAB60638.1; --
EWBL; AF187881; AAF62875.1; --
HSSP; P11215; 1A8X.
HSSP; P11215; 1A8X.
MIM, 602453; --
GO; GO,0008305; C:integrin complex;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              58.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      126885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           861
1018
1028
59
87
87
391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ¥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                925
984
1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        994
1023
59
87
99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Simi
Matches | 675;
                                                                                                                                                                                                                                                                                                                                                                CHAIN
DOMAIN
TRANSMEM
DOMAIN
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
CA BIND
CA BIND
SITE
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
```

1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
1031 PSFSVQEELDFTLKGNLSFGWVRFTLQKKVLVVSVAEITFDTSVYSQLPGQEAFMRAQME 1090 VRINGTVIWDRPOVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019 480 9 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 300 301 NFBALKTIONOLREKIFAIEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG 360 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600 841 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF 900 QLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVFLVP 959 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF 180 781 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV RIHFTFKEFONNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128

9

.. 60

Mismatches 284; Indels

Conservative 162;

ď.

\*

```
ITGAL OR CD11A.
                                              Name=1
                                               Name=2
  LTAL HUMAN
  RESULT
    a
```

```
153370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
CHAIN
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DISULFID
DISULFID
DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REPEAT
CA BIND
CA BIND
CA BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULPID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MIM;
 CD11a I-domain.";
J. Mol. Biol. 292:1-9(1999)
-!- FUNCTION: INTEGRIN ALPHA-L/BETA-2 IS A RECEPTOR FOR ICAMI, ICAM2,
-!- FUNCTION: INTEGRIN ALPHA-L/BETA-2 IS A RECEPTOR FOR ICAMI, ICAM2,
ICAM3 AND ICAM4. IT IS INVOIVED IN A VARIETY OF IMMUNE PHENOMENA
INCLUDING LEUKOCYTE-ENDOTHELIAL CELL INTERACTION, CYTOTOXIC T-CELL
MEDIATED KILLING, AND ANTIBODY DEPENDENT KILLING BY GRANULOCYTES
AND MONOCYTES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=99425270; PubMed=10493829; Loftus B.J., Kim U.-J., Sneddon V.P., Kalush F., Brandon R., Loftus B.J., Kim U.-J., Sneddon V.P., Kalush F., Erandon R., Erukmann J., Mason T., Crosby M.L., Barnsteas M., Cronin L., Bealattes Mays A., Cao Y., Xi R.X., Kang H.-L., Mitchell S., Eichler E.E., Harris P.C., Venter J.C., Adams M.D.; "Genome duplications and other features in 12 Mb of DNA sequence from human chromosome 16p and 16q"; eatures in 12 Mb of DNA sequence from Genomics 60:295-308(1999).
                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. (ISOPORM 1), AND PARTIAL SEQUENCE.
MEDLINE=89139587; PubMed=25;7322;
Larson N.S., Corbi A.L., Berman L., Springer T.;
"Primary structure of the lehkcoyte function-associated molecule-1
alpha subunit: an integrin with an embedded domain defining a protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            X-RAY CRYSTALLOGRAPHY (2.6 ANGSTROMS) OF 153-334.
MEDLINE=99425288; PubMed=10493852;
Kallen J., Welzenbach K., Ramage P., Geyl D., Kriwacki R., Legge G.,
Cottens S., Welzer-Schmidt GJ, Hommel U.;
"Structural basis for LFA-1 inhibition upon lovastatin binding to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   X-RAY CRYSTALLOGRAPHY (1.8 ANGSTROMS) OF 153-335, AND REVISION TO 214. MEDLINE=96036067; PubMed=7479767; Qu A., Leahy D.J.; Crystal structure of the I-domain from the CD11a/CD18 (LFA-1, alpha L beta 2) integrin."; Proc. Natl. Acad. Sci. U.S.A. 92:10277-10281(1995).
                                                                                        TTAL HUMAN STANDARD; PRT; 1170 AA.
P20701; 047746;
01-FEB-1991 (Rel. 17, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
Integrin alpha-L precursor (Leukocyte adhesion glycoprotein LFA-1 alpha chain) (Leukocyte function associated molecule 1, alpha chain) (CD11a).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ou A., Leahy D.J.;
The role of the divalent cation in the structure of the I domain "The role of the Jutegrin.";
Structure 4:931-942(1996).
                                                                                                                                                                                                                                                       Homo sapiens (Human).

Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;

Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-L
1091 MVLEEDEVYNAIPIIMGSSVGALLLLALITATLYKLGFFKRHYKEMLED 1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LisoId=P20701-2; Sequence=VSP_002738;
Note=No experimental confirmation available;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ASSOCIATES WITH BETA-2.
SUBCELLULAR LOCATION: Type I membrane protein.
ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    K-RAY CRYSTALLOGRAPHY (2.0 ANGSTROMS) OF 153-335.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      lsoId=P20701-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=96398682; PubMed=8805579;
                                                                                                                                                                                                                                                                                                                                                                                                                                               superfamily.";
J. Cell Biol. 108:703-712(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. (ISOFORM 2)
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
-i- TISSUE SPECIFICITY: LEUKOCYTES.
-i- DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
-i- SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
-i- SIMILARITY: Contains 1 VWFA domain.
-i- SIMILARITY: Contains 7 FG-GAP repeats.
-i- DATABASE: NAME=PROW; NOTE=CD guide CD11a entry;
-i- DATABASE: NAME=PROW; NOTE=CD guide CD11a entry;
-i- MWM="http://www.ncbi.nlm.nih.gov/prow/cd/cd11a.htm".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R GO; GO: 0008305; C:integrin complex; TAS.

R GO; GO: 0006926; P:cell motility; TAS.

R InterPro; IPR0002035; VWF.A.

R Pfam; PF00135; VWF.A.

R Pfam; PF00135; VWA; 1.

R Pfam; PF00135; VWA; 1.

R PRINTS; PR00145; INTEGRINA.

R PRINTS; PR00145; INTEGRINA.

R PRINTS; PR00191; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R PROSITE; PS00242; INTEGRINA.

R SIGNAL; 3D-structure; Magnesium; Calcium; Repeat;

M Alexanative splicing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INTEGRIN ALPHA-L.
EXTRACELLULAR (POTENTIAL)
POTENTIAL.
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FG-GAP 3.
FG-GAP 4.
FG-GAP 4.
FG-GAP 6.
FG-GAP 6.
FG-GAP 7.
POTENTIAL.
POTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENTIAL.
FOTENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FG-GAP 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FG-GAP 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; AC002310; AAC31672.1; -.
PIR; S03308; S03308.
PDB; 1LFA; 29-JAN-96.
PDB; 1ZON; 07-DEC-96.
PDB; 1ZOP; 07-DEC-96.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; Y00796; CAA68747.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PDB; IZON; 07-DEC-96.
PDB; IZOO; 07-DEC-96.
PDB; IZOP; 07-DEC-96.
PDB; ICOP; 07-AUG-00.
PDB; IDCQ; 03-FEB-00.
PDB; IMCQ; 14-JAN-03.
PDB; IMCQ; 14-JAN-03.
PDB; IMCQ; 14-JAN-03.
PDB; IMCQ; 14-JAN-03.
PDB; IMCQ; 14-JAN-03.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25
1170
1088
1112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                455
516
575
630
476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1089
```

. .) (POTENTIAL)

```
KIHQVKHMYQVKIQPSIHDHNIPTLEAVVGVPQPPSEGPITHQMSVQMEPPV--PCHYED 1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -ERLPSHSD--FLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEFFNATLKGNLSFDWYIK 1043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLL 1103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        833
                                                                                                                                                                                                                                                                                                                                                                                                                           887
                                                                                                                                                                                                                                                                                                                                                                                                                                                  LGNKLLLKANVTSENN----MPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASEN 931
                                                                                                                                                                                                                                                           707
                                                                                                                                                                                                                                                                                                         757
                                                                                                                                                                                                                                                                                                                       DNICODDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVS 817
                                                                                                                                          544
                                                                                                                                                                                       601
  FVKILDTFEKLKDLFTELQKKIYVIEGTSKQDLTSFNMELSSSGISADLSRGHAVVGAVG 369
                                                                                                                                                                                                                                                                                                                                                                     | |: :| |: || | |: || DKKCEANLRVGFSPARSRALRLTAFASLSVELSLSNLEEDAYWVQLDLHFPPGLSFRKVE
                                                                                   EDPVSPIVLRINFSL---VGTPLS--AFGN-----LRPVLAEDAORLFTALFPFEKNCGN
                                                                                                                                                                                                                                                                                                                                                                                                     TLONORSQRSWRLACES--ASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKAS
                                                                                                                                                                                                                                                                                                                                                                                                                  834 ML---KPHSQIPVSCEELPEESRLLSRAL---SCNVSSPIFKAGHSVALQMMFNTLVNSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WGDSVELHANVTCNNEDSDLLEDNSATTI - - - IPILYPINILIQDQEDSTLYVSFTPKGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TSRVMQHQYQV---SNLGQRSLP-ISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTK-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVV-KGKEAGEVRVCLHVQKSTR
                                                                      IGLVAMFR - - QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQT
                                                                                                                   RGGQVSVCPLPRGQRARWQCDAV - - LYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP
                                                                                                                                                                 GBEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTV
                                                                                                                                                                                                                                                            DRLREGOIOSVVTYDLALDSGRPHSRAVFNETKNSTRROTOVLGLTQTCETLKLOLPNCI
                        SYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTAL_MOUSE STANDARD; PRT; 1163 AA.
P24063;
01-MAR-1992 (Rel. 21, Created)
101-MAR-1992 (Rel. 21, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Integrin alpha-L precursor (Leukocyte adhesion glycoprotein LFA-1 alpha chain) (Leukocyte function associated molecule 1, alpha chain) (CD11a).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus (Mouse).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LLALITAALYKLGFFKRQYKDMMSEG-GPPGAEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGAL OR LFA-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1103
  310
                                              370
                                                                      413
                                                                                             430
                                                                                                                                                                 529
                                                                                                                                                                                                                                     602
                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                719
                                                                                                                                                                                                                                                                                                                                                                             774
                                                                                                                                                                                                                                                                                                                                                                                                     818
                                                                                                                                                                                                                                                                                                                                                                                                                                                 876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1044
                        355
                                                                                                                   471
                                                                                                                                         490
                                                                                                                                                                                       545
                                                                                                                                                                                                              589
                                                                                                                                                                                                                                                            648
                                                                                                                                                                                                                                                                                                          708
                                                                                                                                                                                                                                                                                                                                                       758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TAL MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q.
                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                          8 S
                                                                                                                                                                                                                                                                                                                                                                     음
                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                            충
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       $
                                         셤
                                                                     ઠ
                                                                                      셤
                                                                                                           કે
                                                                                                                                    셤
                                                                                                                                                                ò
                                                                                                                                                                                 8 S
                                                                                                                                                                                                                                                           ઠે
                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          354
N-LINKED (GLCNAC. . . ) (POTENTIAL).
N-LINKED (GLCNAC. . . ) (POTENTIAL).
N-LINKED (GLCNAC. . . ) (POTENTIAL).
N-LINKED (GLCNAC. . . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LQGRPGFQECIKG----NVDLVFLFDGSMSLQPDEFQKILDFMKKKLSNTSYQFAAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -QOPOKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PIRLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLR---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QYSEEFRIHFTFKEFONNPNPRSLVKPITOLLGRTHTATGVRKVIRELLNITNGARKNAF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KILIVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FNLDTENAMTFQ - - ENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26.4%; Score 1552.5; DB 1; Length 1170;
.larity 34.5%; Pred. No. 7.5e-97;
Conservative 208; Mismatches 460; Indels 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MW; 39A7AF92EF286FC0 CRC64;
                                                                                                                                                      TIG=VSP 002738.
-> W (IN REF. 1 AND 2)
-> I (IN REF. 2).
                                                                                                                                                   /FTId=VSP
R -> W (IN
Y -> I (IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   128819
                                                                                            897
1060
1071
954
                                                                                                                                                                                                                                    188
206
213
221
223
229
229
243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   311 31
318 31
319 32
329 33
1170 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                244
247
253
253
274
274
                                                                                                                                                                                                                                                                                                                                                                                                               2280
2293
300
300
                                                                                                                                                                                                                                                                                  217
222
229
233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Simi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  197
                                                                     CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                              CONFLICT
CONFLICT
STRAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           82
                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                        CARBOHYD
                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                           HELIX
HELIX
STRAND
                                                                                                                                                                                                  STRAND
TURN
HELIX
TURN
STRAND
STRAND
HELIX
HELIX
HELIX
HELIX
HELIX
TURN
STRAND
                                                                                                                                                                                                                                                                                                                                                                              STRAND
HELIX
TURN
                                                                                                                                                                                                                                                                                                                                                                                                               STRAND
HELIX
HELIX
TURN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HELIX
                                                                                                                                                                                                                                                                                                                                                       rurn
rurn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TURN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Loc
Matches
  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

```
60 IRLQVPVEANNMSLGLSLAATTSPPQLLACGPTVHOTCSENTYVKGLCFLFGSNLRQQPQ 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            : | | : | | : | | : | | : | | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FRIHFTFKEF-QNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILI 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          292 PRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLS 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           365 AVGAKDWAGGFLDLREDLQGATFVGQEPLTSDVRGGYLGYTVAWMTSRSSRPLLAAGAPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        410 YQHIGLVAMFR--QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       352 TVGSYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAG-EVRVCLHVQKST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            239 VITDGEKFGDPLGYEDVIPEADREG-----VIRYVIGVGDAFRSEKSRQELNTIASKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                425 YQHVGQVLLFQAPEAGGRWNQTQKIEGTQIGSYFGGELCSVDLDQDGEAELLLIGAPLFF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24 YNLDTRPIQSFLAQAGRHFGYQVLQIEDG-VVVGAPGB---GDNTGGLYHCRISSEFCQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KPPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              199 CRTEFTFLDYVKQNKNPDVLLGSVQPMFLLTNTFRAINYVVAHVFKEESGARPDATKVLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             468 EQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 FNLDTENAMIFQENA-RGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
26.1%; Score 1533.5; DB 1; Length 1163;
Best Local Similarity 34.0%; Pred. No. 1.4e-95;
Matches 398; Conservative 217; Mismatches 458; Indels 99; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                           (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    __
::
-
::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GLCNAC. . .)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         128343 MW; A7A3078489E8232F
                                                                               BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GFFKR MOTIF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ::
    1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             899
927
1056
1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             588
                                                                                                                                                                                                                                                          DISULFID
DISULFID
DISULFID
DISULFID
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
CARBOHYD
SEQUENCE
CA BIND
SITE
DISULFID
                                                                                                                                                                                                              DISULFID
                                                                                                                               SULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
             SO SECTION SECTION SOLUTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SECTION SE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its mose by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUBCELLULAR LOCATION: Type I membrane protein.
TISSUB SPECIFICITY: LEUKOCYTES.
DOMAIN: THE INTEGRIN I LOCAMIN (INSERT) IS A WHFA DOWAIN. INTEGRINS
WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
SIMILARITY: Contains 7 FG-GAP repeats.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; M60778; AAA39426.1; -
R PIR; IS6126; IS6126.
R HSSP; P20701; 1LFA.
R MGD; MGI 96666; ILGGAl.
R InterPro; IPR002035; VWF A.
R InterPro; IPR002035; VWF A.
R Pfam; PF00189; FG-GAP; 3.
R Pfam; PF00185; INTEGRINA.
R PRINTS; PR01185; INTEGRINA.
R PRINTS; PR00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SM00191; Int Applya; SMART; SMART; SMO0191; Int Applya; SMART; SMART; SM00191; Int Applya; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART; SMART;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LEUCOCYTES RECRUITMENT. |
SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-L
ASSOCIATES WITH BETA-2. |
                                                                                                                               MEDLINE=91268576; PubMed=205|027;
Kaufmann Y., Tseng E., Springer T.A.;
"Cloning of the murine lymphocyte function-associated molecule-1
alpha-subunit and its expression in COS cells.";
J. Immunol. 147:369-374(1991)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INTEGRIN ALPHA-L.
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            POTENTIAL.
CYTOPLASMIC (POTENTIAL).
FG-GAP 1.
FG-GAP 2.
VWFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
PG-GAP 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23
1163
1084
1108
1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      514
514
513
628
536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           334
                                                             [1]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      399
455
516
576
528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24
24
1085
1109
39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Repeat.
SIGNAL
CHAIN
DOMAIN
TRANSMEM
DOMAIN
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ----
```

36;

29 79 409

424

364

258 291 304 467

484 527 541 587

```
I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE
                                                                                                                                                                                     Pfam; PF01839; FG-GAP; 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      501
564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISULFID
DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CA BIND
CA BIND
CA BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                         REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                       REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                               REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REPEAT
1100
                                                                                                                                                                                                                                                                                            1042
                                                                                                                                                                                                                                                                                                                1105
                                                                                                                                                                                                                                                                        E-RLPSHSDFLAELRKAPVVNCSIAVCORIOCDIPFFGIOEEFNATLKGNLSFDWYIKTS 1045
                                                                                                                                                                                                                               986
                                                                                                                                                                                                                                                    966
                                                           762
                                                                                                    816
                                                                                                                                             875
                                                                                                                                                                 882
                                                                                                                                                                                      934
                                                                                                                                                                                                          942
                                                                               774
                                                                                                                         827
 658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Smith T.J., Ducharme L.A., Shaw S.K., Parker C.M., Brenner M.B., Kilshaw P.J., Weis J.H.; Shaw S.K., Parker C.M., Brenner M.B., Kilshaw P.J., Weis J.H.; Shaw S.K., Parker C.M., Brenner M.B., Kilshaw P.J., Weis J.H.; Indian expression modulated by mast cell activation."; Immunity 1:393-403 (1994).

Immunity 1:393-403 (1994).

Immunity 1:393-403 (1994).

Immunity 1:393-403 (1994).

Immunity 1:393-403 (1994).

Integrin Alpha-E/Bera-7 IS A RECEPTOR FOR E-CADHERIN. IT MEDIATES ADHESION OF THE ALPHA-E SUBUNIT GENE EXHIBIT A MARKED REDUCTION IN THE NUMBERS OF INTRAEPITHELIAL LYMPHOOTHES IN THE GUT AND IN THE DEVELOPMENT OF GUT-ASSOCIATED LYMPHOID AGGREGATES, SUPPORTING A SPECIFIC ROLE FOR THIS INTEGRIN IN MEDIATING RETENTION OF LYMPHOCYTES IN THE INTESTINAL WALL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. THE ALPHA SUBUNIT IS COMPOSED OF AN HEAVY AND A LIGHT CHAINS LINKED BY A DISULFIDE BOND. ALPHA-E ASSOCIATES WITH BETA-7. SUBCELLULAR LOCATION: Type I membrane protein.

DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A WHFA DOMAIN. INTEGRINS
                                                                                                                                                                                                   883 WEDFVELNGTVHCENENSSLQEDNSAATHIPVLYPVNILTKEQENSTLYISFTPKGPKTQ
                                                                                                                                                                                                                               VMQHQYQVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQ-----VTFSENLSS----TCHTK
                                                                                                                                                                                                                                           RDRLREGQI QSVVTYDLAL DSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNC
                                                                         ANLTLSSPARS-----GPLRLMSSASLAVEWTLSNSGEDAYWVRLDLDFPRGLSFRKV
                                                                                                                                             STLONGRSORSWRLACESASSTEVSGAL-KSTSCSINHPIFPENSEVTFNITFDVDSKAS
                                                                                                                                                          LGNKLLLKANVTSEN-NMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSR
                                                                                                                                                                                                                                                                                            DLKRPSSE---AEQPCLPGV-----QFRCPIVF---RWEILIQVTGTVELSKEIKAS
                                                                                                                                                                                                                                                                                                                            STISECSSESVSFNSSKHFHLYGSKA-SEAQVLVKVDLIHEKEMLHVYVLSGIGGLVLL
 599 VGAEGRVVVLSSRPVVDVVTELSFSPEEIPVHEVECSYSAREEQKHGVKLKACFRIKPLT
                                 PO--FOGRILLANLSYTLOLDGHRMRSRGLFPDGSHELSGNISITP-DKSCLDFHFHFFIC
                                                            IEDPVSPIVLRLNFSLV---GTPLSAFGN-LRPVLAEDAQRLFTALFPFEKNCGNDNICQ
                                                                                                      -----REFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKV
                                                                                                                                                                                                                                                                                                                HNHLLIVSTAEILFNDSVFILLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                            (Rel. 35, Last sequence update)
(Rel. 41, Last annotation update)
ha-E precursor (Integrin alpha M290).
                                                                                                                                                                                                                                                                                                                                                          ALITAALYKLGFFKRQYKDMM-SEGGPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                      1101 FLIFLALYKVGFFKRNLKEKMEADGGVPNGSP 1132
                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT; 1167 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota, Metazoa, Chordata,
Mammalia, Eutheria, Rodentia,
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last seq
                                                                                                    DDLSITESFMSLDCLVVGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Integrin alpha-E precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                 MOUSE
                                                                                                                                                                                                                                                                                                                1046
                                                                                                                                                                                                                                                                                                                                     1043
                                                                                                                                                                                                                                                                                                                                                          1106
                                                                                716
                                                                                                                          775
                                                                                                                                                                  828
                                                                                                                                                                                       978
                                                                                                                                                                                                                                                                        987
                                                                                                                                                                                                                                                                                             166
                    647
                                                                                                      763
                                                                                                                                              817
                                        629
                                                                                                                                                                                                                                                                                                                                                                                                                               ITAE M
060677
                                                                                                                                                                                                                                                                                                                                                                                                                     MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            . 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 + +
                                                                                                                                                                                                                                                                                                                                                                                                                    ITAE !
                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                               g
                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                          ò
                                                                               a
                                                                                                    ò
                                                                                                                                              ò
                                                                                                                                                                                      ò
                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                            셤
                                       셤
                                                           ò
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its mee by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Printiple Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (POTENTIAL)
SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY SIMILARITY: Contains 1 VWFA domain. SIMILARITY: Contains 7 FG-GAP repeats.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   X-DOMAIN (EXTRA DOMAIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GLU-RICH (ACIDIC).
GFFKR WOTIF.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FG-GAP 3.
FG-GAP 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FG-GAP 5.
FG-GAP 6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FG-GAP 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MGD; MGI:1298377; Itgae.
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002035; VWF_A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FG-GAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FG-GAP
                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; U12236; AAC52142.1; -. HSSP; P11215; 1A8X.
```

<del>i</del>					······································						<del> </del>				***									-		_
	43;	52 74	109	131	189	249	312	309	367	429	425	1, 4 10 0	547	536	969	665	653	715	760	750	608	810	898	870	918	930
N-LINKED (GLCNAC) (POTENTIAL). N-LINKED (GLCNAC) (POTENTIAL). WW, B8331C115DCCCFFD CRC64;	Score 1157.5; DB 1; Length 1167; Pred. No. 4.1e-70; 11; Mismatches 459; Indels 205; Gaps	FNLDTENAMTFGENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDY   -	STGSCEPIRLQVPVEAVNASLGLSLAATTSPPQLLAC-GPTVHQTCSENTYVKGLCFL			GTELAIVLDGSGSLGFSDFQKAKNFISTMMKNFYEKCFECNFALVQYGAVIQTEFDLGES QNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVITDGEKFGDP	::  :    :    :    :  :     :	LGYEDVI PEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVNNFEALKTIQ	NOLREKIFALEGTQTGSSSSFEHEMSQEGFSAAITSNQP-LLSTVGSYDWAGGVFLY-TS	SKLQQRIVHMEGTVGDALQYQLAQTGFSAQILDKGQVLLGTVGAFNWSGGALLYSTQ	KEKSTFINMT-RVDS-DMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGM	NGRGCFLNQTAKEDSKIVQXSILGISLAVLHKAHGISIVAGAPKHKLKGAVFELKKEDK-	WESDANYGOLGAIRABLESVUONGOLDIGARIOLIGARIOLIGAGOSOLFIERBEDAFVRRIEGEGOMGSYFGSVLCPVDIDMDGTTDFLLVAAFFYHIRGEEGRVYVYQVPE	GORARWOCDAVLYGEQGOPWGREGAALTVLGDVNGDKLTDVALGAPGEEDNRGA ODA GEG A JUST GOLD GT WING PEGENAA A VIGIT NOD KEPTNA 1 GAD I FOR GAD GAS Y GAD I FOR GAD GAS Y GAD I FOR GAD GAS Y GAD I FOR GAD GAS Y GAD I FOR GAD GAD GAS Y GAD I FOR GAD GAD GAS Y GAD I FOR GAD GAD GAS Y GAD I FOR GAD GAS Y GAD I FOR GAD GAD GAS Y GAD I FOR GAD GAD GAS Y GAD I FOR GAD GAD GAS Y GAD I FOR GAD GAD GAS Y GAD I FOR GAD GAD GAS Y GAD I FOR GAD GAD GAD GAD GAD GAD GAD GAD GAD GAD	-QUART SERVIT LESGREGE TROSK SERVICE AND TROPK LEVEL SERVICES SERVICES AND TROPK SERVICES AND TROSK SERVICES AND TROPK SERVICES		ARNVFECNDQVVKGKEAGEVRVCLHVQKST	LRSRPVVDLTVSMTFTPDALPMVFIGKMDVNLCFEVDSSVVASEPGLREM OTOSVVTVDI.AI.DSGRPHSRAVPNETKNSTRROTOVI.GI.TOTC	WNGGSFL	RLNFSLV	Ţ	FERNCGNDNI CQDDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLD	EKDČKNKVFČIAEIQLTTN-1SQQELVVGVTKEVTMNISLTNSGEDSYMTNMALNYPRN	>	QKPVSPDVQCDDPKPVASVLVMNCKIGHPIL-KRSSVNVSVTWQL	DSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASE
1055 1055 1086 1086 1167 AA; 128983	ch 19.7%; 1 Similarity 29.0%; 358; Conservative 2:	FNLDTENAMTFQENARGFGQSVVQLQGSRVV   :	STGSCEPIRLQVPVEAVM 	FGSNLRQOPQKFPEALRG	DSDIAFLIDGSGSIIPHD	GTEIAIVLDGSGSIGFSD QNNPNPRSLVKPITQLLG	RDINASLAKVQSIVQVKE	LGYEDVIPEADREGVIRY	NOLREKIFALEGTOTGSS	SKLQQRIVHMEGTVG	KEKSTFINMT-RVDS-DM	NGRGCFINGTAKEDSKIV	WESNANVKGIQIGAY   :  :   :   : -EEDAFVRRIEGEQMGSY	GORARWOCDAVLYGEOGO	VYLFHGTSGSGISPSHSQ	VYIYNGHSG-GLYDSPSQ	LRSQPVLRVKAIMEFNPR	LRSRPVVDLTVSMTFTP- OTOSVVTYDLALDSGRPH	FLNFTVDVDV	ETLKLQLPNCIEDPVSPI	STEELCEEDCFSNI	FEKNCGNDNICQDDLSIT	≻	LSYRKVSTLONORSORSW		
CARBOHYD CARBOHYD SEQUENCE	ery Mat st Loca tches	1 20	53			193	253	250		373	368	430	489	483 483	537	.607	597	666	716	697	1961	751	810	811	869	871
FT SQ	Mag	ر م	<u>ئ</u> و	ે દ	3 6 8	8 8	gg	\$ A	ò	පු	ठे द	9 8	8 8	કે ક	3 8	e e	ò	<b>a</b> 8	g 6	ò	g	ò	qq	8	Q O	ò

```
1045
                                                                                                                                                            1065
                                                                          972 SPSDHKEFFFRWHGENLFGAVFQLQICVPIKLQDF-----QIVRVKNLTKTQDHTECTQ 1025
                                                                                                                                                                                                                                 1066 HTKQLLRDVSELPILGEISFNKSLYEGLNAE-----NHRTKITVIFLKEEFTRSLPLII 1119
919 EESVFPNRTADITVTISNSNEKSLARETR---SLQFRHAFIAVLSR--PSVMYMN--TSQ 971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             integrins.";
J. Biol. Chem. 275:25652-25664(2000).
-!- FUNCTION: INTEGRIN ALPHA-E/BETA-7 IS A RECEPTOR FOR E-CADHERIN. IT
MEDIATES ADHESION OF INTRA-EPITHELIAL T-LYMPHOCYTES TO EPITHELIAL
                                                                                                                          986 KERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTS
                                                    931 NTSRVMQHQYQVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSENLSST----CHT
                                                                                                                                                          ----TSNKENVTVAAEISVG
                                                                                                                                                                                               HNHLLIVSTA-----EILFNDSVFTLLPGQGAFVRSQTETKVEPF----EVPNPLPLIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIINE=20400502; PubMed=10837471;
Higgins J.M.H., Cernadas M., Tan K., Irie A., Wang J.-H., Takada Y.,
Brenner M.B.;
"The role of alpha and beta chains in ligand recognition by beta 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ш
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TIŠSUB=Fetal kidney;
MEDLINE=20138496; PubMed=10673275;
Touchman J.W., Anikster Y., Dietrich N.L., Maduro V.V., McDowell G.,
Shorelersuk V., Bouffard G.G., Beckstrom-Sternberg S.M., Gahl W.A.,
Green E.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ส
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUELELEAUKemia, and Lymphocytes;
TISSUE-Equivemia, and Lymphocytes;
Shaw S.K., Cepek K.L., Murphy B.A., Russell G.J., Brenner M.B.,
Parker C.M.;
Parkar C.M.;
Molecular cloning of the human mucosal lymphocyte integrin alpha subunit. Unusual structure and restricted RNA distribution.";
J. Biol. Chem. 269:6016-6025(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "The genomic region encompassing the nephropathic cystinosis gene (CTNS): complete sequencing of a 200-kb segment and discovery of a novel gene within the common cystinosis-causing deletion.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                               P38570; Q9NZU9;
01-OCT-1994 (Rel. 30, Created)
30-MAY-2000 (Rel. 39, Last sequence update)
28-FRB-2003 (Rel. 41, Last annotation update)
Integrin alpha-E precursor (Mucosal lymphocyte-1 antigen) (HML-1 antigen) (CD103 antigen) (Integrin alpha-IEL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                    1096 GSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                          1120 GSSIGGLLVLVVIIAILFKCGFFKRKYQQLNLE 1152
                                                                                                                                                                                                                                                                                                                                                                                                1179 AA
                                                                                                                                                  1026 SQEPACGSDPVQHVKEWHSVVCAI------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MUTAGENESIS OF ASP-109 AND PHE-316.
                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE OF 53-1179 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genome Res. 10:165-173(2000)
                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REVISIONS TO 88-114.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Σ
                                                                                                                                                                                                                                                                                                                                                                                                  HUMAN
                                                                                                                                                                                                   1046
                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                   g
                                                     ઠે
                                                                                         유
                                                                                                                            ઠે
                                                                                                                                                        음
                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                      ઠે
```

SUBUNIT: HEYERODIMER OF AN ALPHA AND A BETA SUBUNIT, THE ALPHA SUBUNIT IS COMPOSED OF AN HEAVY AND A LIGHT CHAINS LINKED BY A DISULFIDE BOND, ALPHA-E ASSOCIATES WITH BETA-7. SUBCELLULAR LOCATION: Type I membrane protein.

CELL MONOLAYERS

```
531 KEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVL 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            118 LSSELT---GTCSLLGPDLRPQAQANFFDLENLLDPDARVDTGDCYSNKEGGGEDDVNTA 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120 KFPEALRGCPQED-----SDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL-- 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SSHGSRRKASKVMVVLTDGGIFEDPLNLTTVINSPKMQGVERFAIGVGEFKSARTAREL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           589 QDKLTDVAIGAPLEGFGADDGASFGSVYIYNG-HWDGLSASPSQRIRASTVAPGLQYFGM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GSLYQCDYSTGS -- CEPI -RLQVP -- -- - VEAVNMSLGLSLAATTSPPQLLACGPTVHQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     96 TCSENTYVKGLCFLFGSNLRQQPQ------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        225 ITNGARKNAFKILIVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        285 NTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            345 SNGP-LLSTVGSYDWAGGVFLY-TSKEKSTFINMTRVDSDMNDA----YLGYAAAIILRN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  412 DERQVLLGAVGAFDWSGGALLYDTRSRRGRFLNQTAAAAADAEAAQYSYLGYAVAVLHKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                399 RVOSLVLGAPRYQHIGLVAMFR-QNTGMWESNANV-KGTQIGAYFGASLCSVDVDSNGST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      472 CSLSYVAGAPOYKHHG--AVFELOKEGREASFLPVLEGEOMGSYFGSELCPVDIDMDGST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DLVLIGAPHYYEQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GDKLTDVAIGAP ---- GEEDNR -- GAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPRBVARNVFECNDQVVKG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           691 GLTQTCETLKLQLPN----CIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                           (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches 343; Conservative 211; Mismatches 451; Indels 172;
                                                                                                                                                                                                                                                                                                                                                                             BINDING.
BINDING.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1149; DB 1; Length 1179;
Pred. No. 1.6e-69;
                       N-LINKED (GLCNAC. . . ) (FOTENT N-LINKED (GLCNAC. . . ) (FOTENT N-LINKED (GLCNAC. . . ) (FOTENT N-LINKED (GLCNAC. . . ) (FOTENT N-LINKED (GLCNAC. . . ) (FOTENT N-LINKED (GLCNAC. . . ) (FOTENT N-LINKED (GLCNAC. . . ) (FOTENT N-LINKED (GLCNAC. . . ) (FOTENT N-LINKED (GLCNAC. . . ) (FOTENT N-LOSS OF E-CADHERIN BIND) (V -> I (IN REF. 3) (V -> I (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN REF. 3) (V -> M (IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19.6%;
29.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AA; 130088
   782
857
934
954
1065
1096
                                                                                                                                                                                                                                                                                                                                                                         208
316
477
482
950
1019
                                                                                                                                                                                                                                                                                               1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                             208
316
477
482
950
                                                                                                                                                                                                                                                                                                   1041
                                                                                                                                                                                                                                                                                                                                                                     MUTAGEN
MUTAGEN
CONFLICT
CONFLICT
CONFLICT
CONFLICT
SEQUENCE
                                   CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local &
                                                                                                                                                                                                                                                                                                   VARIANT
   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              đ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its most by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                               AS INTRA-EPITHELIAL LYMPHOLIES.

EPITHELIAL CELLS.

EPITHELIAL CELLS.

EPITHELIAL CELLS.

EPITHELIAL CELLS.

I-DOMAIN: I-DOMAIN: I-DOMAIN: INTEGRINS

WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.

SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.

SIMILARITY: CONTAINS 7 RG-GAP repeats.

- SIMILARITY: CONTAINS 7 RG-GAP repeats.

- DATABASE: NAME=PROW; NOTE=CD guide CD103 entry;

WWW="http://www.ncbi.nlm.nih.gov/prow/cd/cd103.htm".
ISSUE SPECIFICITY: EXPRESSED ON A SUBCLASS OF T-LYMPHOCYTES KNOWN INTRA-EPITHELIAL LYMPHOCYTES WHICH ARE LOCATED BETWEEN MUCOSAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL, MASDAJAJA, A. AAR43107.1; -. BMBL, AS1213; AS3213; AS3213. AS3213. AS3213. AS3213. AS3213. AS3213. AS3213. AS3213. AS3213. AS3213. AS3213. AS3213. AS3213. AS3213. AS3213. AS3213. AS3213. AS3213. AS3213. AS3213. AS3213. AS3213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA213. ASSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INTEGRIN ALPHA-E.
INTEGRIN ALPHA-E LIGHT CHAIN.
INTEGRIN ALPHA-E HEAVY CHAIN.
EXTRACELLULAR (FOTENTIAL).
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                X-DOMAIN (EXTRA DOMAIN) VWFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 6.
FG-GAP 6.
FG-GAP 6.
FG-GAP 6.
FG-GAP 7.
FG-GAP 6.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP 7.
FG-GAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CYTOPLASMIC (POTE)
GLU-RICH (ACIDIC)
PG-GAP 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FG-GAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; L25851; AAB59359.2; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1179
177
11177
11124
11147
11179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    594
662
1154
79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    907
1033
1057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19
179
179
1125
1148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                126
706
823
893
1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHAIN
CHAIN
CHAIN
CHAIN
CHAIN
DOMAIN
DOMAIN
DOMAIN
DOMAIN
DOMAIN
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT
EEPEAT

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
CARBOHYD
CARBOHYD
```

630

697

647

456

398

```
DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               57
                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
CARBOHYD
                                                                                                                                                TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                 REPEAT
REPEAT
CA BIND
CA BIND
CA BIND
CA BIND
                                                                                                                                                                                                                                                                                                                               DISULFID
                                                                                                                                                                                                                                                                                                                                         DISULFID
                                                                                                                                                                                                  DOMAIN
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1. SHOLL Chem. 268:2999-2999 (1993).

1. SHOLL Chem. 268:2999-2999 (1993).

2. PUNCTION: INTEGRIN ALPHA-1/BETA-1 IS A RECEPTOR FOR LAMININ AND COLLAGEN. IT RECONIZES THE PROLINE-HYDROXYLATED SEQUENCE G-F-P-G-E-R IN COLLAGEN.

2. SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-1

3. SSOCIATES WITH BETA-1.

3. SUBCELLULAR LOCATION: Type I membrane protein.

3. SUBCELLULAR LOCATION: Type I membrane protein.

3. SUBCELLULAR LOCATION: Type I membrane protein.

4. SUBCELLULAR LOCATION: Type I membrane protein.

5. SUBCELLULAR TOO NOT UNDERGO PROTEASE CLEAVAGE.

4. SIMILARITY: CONTAINS 1 WHE REGREN ALPHA CHAIN FAMILY.

5. SIMILARITY: CONTAINS 1 WHE SECONDAIN (1904) FOR CD49 a entry;

6. SIMILARITY: CONTAINS 7 FG-GAP repeats.

6. SIMILARITY: CONTAINS 7 FG-GAP repeats.

7. SIMILARITY: CONTAINS 7 FG-GAP repeats.

7. SIMILARITY: CONTAINS 7 FG-GAP repeats.

8. SIMILARITY: CONTAINS 7 FG-GAP repeats.

8. SIMILARITY: MAME-PROW; NOTE=CD guide CD49a entry;

8. WAW="http://www.ncbi.nlm.nih.gov/prow/cd/cd49a.htm".

8. PDB; 1QC5; 17-MAY-00.
                                                                                                                                                                                                                                                                                 984 SHHKEFLFHVHGEN---LFGAEYQ------LQICVPTKLRGLQVAAVKKLTRTQ 1028
                                                                                                                                                                                                                 NLSSTCHTKERLPSHSDFLÅELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLS 1037
                                                                                                                                                                                                                                                                 --- AEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPL 1091
                                                                                                                            924 VWQLEENAFPNRTADITVTVTNSNERRSLANETHTLQFRHGFVAVLSKPSIMYVNTGQGL 983
                                                                                                                                                             977
                                                                            874 YPRNLQ-----LKRMQKPPSPNIQCDDPQPV---ASVLIMNCRIGHPVL-KRSSAHVSV
             ALFPFEKNCGNDNICQDDLSjTFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFF
                            S--TKYLNFTASENTSRVMOHQYQVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQVTFSE
                                                                                                             TFDVDSKASLGNKLLLKANVTSENN----MPRTNKTEFQ---LELPVKYAVYMVTSHGV
                                                                                                                                                                                                                                        ----SDKENVTVAAEIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=93155124; PubMed=8428973;
Briesewitz R., Epstein M.R., Marcantonio E.E.;
"Expression of native and truncated forms of the human integrin alpha
                                                             PPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
Integrin alpha-1 (Laminin and collagen receptor) (VLA-1) (CD49a)
ITGAl:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GO; GO:0008305; C:integrin complex; TAS.
GO; GO:0004895; F:cell adhesion receptor activity; NAS.
GO; GO:000518; F:cellagen binding activity; TAS.
GO; GO:0007160; P:cell-matrix adhesion; NAS.
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002035; VWF_A.
                                                                                                                                                                                                                                                                                                                                   PLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                          PRT; 1151 AA
                                                                                                                                                                                                                               FDWYIKTSHNHLLIVST--
                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Genew: HGNC:
MIM; 192968;
                                                                                                                                                                                                                                                                                                                                                                                                          ITA1 HUMAN
P56199;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 subunit.
J. Biol. C
                                                                                                                                                                                                             978
                                                                                                                                                                                                                                                                  1038
                                                                                                                                                                                                                                                                                           1074
                                                                                                                                                                                                                                                                                                                    1092
                                                                                                                                                                                                                                                                                                                                            1126
                                                            807
                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                         g
                                                             ò
                                                                                  g
                                                                                                                                  g
                                                                                                                                                               ò
                                                                                                                                                                                      g
                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                   ò
```

```
44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CEP-IRLQVPVEA------VNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 FNLDTENAMTFQENARG-FGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQCDYSTGS
                                                                                                                                                                                                                                                                                                                                                                                                                         (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (POTENTIAL) . (POTENTIAL) . (POTENTIAL) .
Pfam; PF01839; FG-GAP; 3.
Pfam; PF00357; integrin_A; 1.
Pfam; PF00092; vwa; 1.
PRINTS; PR01918; INTEGRINA.
PRINTS; PR00191; Int_alpha; 5.
SMART; SM00191; Int_alpha; 5.
SMART; SM0027; vWa; 1.
PROSTIE; PS50224; vWA; 1.
PROSTIE; PS50234; vWFA; 1.
Integrin; Cell adhesion; Receptor; Glycoprotein; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5; DB 1; Length 1151; .1e-66;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels 195;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CRC64
                                                                                                       Integrin; Cell adhesion; Receptor, Cell adhesion; Repeat; Calcium; Magnesium; 3D-siructure.

EXTRACELLULAR (POTENTIAL)
                                                                                                                                                         CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6B3F3C1AABF52808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18.8%; Score 1102.5; DB 1; 27.8%; Pred. No. 2.1e-66; ive 211; Mismatches 487;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                    (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                               (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                            GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                      (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GLCNAC
                                                                                                                                                                                                                                                                                                               BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCM.
                                                                                                                                                                                                                                                                                           POTENTIAL.
GFFKR MOTIF
                                                                                                                                                                                                      FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-LINKED
N-LINKED
N-LINKED
N-LINKED
                                                                                                                                              POTENTIAL
                                                                                                                                                                    FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                                                                                                                POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                            N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                       N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     127837 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                   64
669
728
786
858
1034
                                                                                                                                              1136
1151
75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         980
1045
1055
1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Simi)
Matches 344;
```

```
STD---HLKRGTILDCNTCKFATITCNLTSSDISQVNVSLILWKPTFIKSYFSSLNLTIR 1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             973 KLSISFPNMTSNGYPVLYPTGLSS-----SENANCRPHIFEDPFSINSGKKMTT 1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ---EFNATLK 1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPL 1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ------OKRELAIOISKDGLPGRVPL 1114
                                                                                                                                                                                     338
                                                                                                                                                                                                                                                                    532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SRSFFSGTQERKVQRNITVRKSEC-----TKHSFYMLDKHDFQDSVR----ITLDFNLT-D 755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSN....-.LGQRS...-.-L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLK- 165
                                                                                                                                            339 FSAAITSNGPLLSTVGSYDWAGGVFLYTSKE----KSTF-INMTRVDSDMNDAYLGYAA 392
                                                                                                                                                                                                                                                                                                             451
                                                                                                                                                                                                                                                                                                                                -----YEQTR-GGOVSVCPLPRGORARWQCDAVLY 495
                                                                                                                                                                                                                                                                                                                                                                                                                                        496 GEQGQPWG-RFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQ 554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPR 614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RIPSGGDGKTLKFFGQSIHGEMDLNGDGLTDVTIGGLGGAALFWSRDVAVVKVTMNFEPN 651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EVARNVFECNDOVVKGKEAG -- EVRVCLHVQ-KSTRDRLREGQIQSVVTYDLALDSGRPH 671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PENG-----PVLDDSLPNSVHEYIPFAKDCGNKEKČISDLŠLHVATTEKDLLIVRSQNDK 810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KSTSCSINHPIFPENSEVTFNITFDVDSKASLGN-KLLLKANVTSENNMPRTNKTEFQLE 903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   854 HNITCKVGYPFLRRGEMVTFKILFQFNTSYLMENVTIYLSATSDSEEPPETLSDNVVNIS 913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              951 PISLVF------LVPVRLNQTVIWDRPQVTFSENLSSTCHTKE------RLPS 991
                   CSDVSPTFQVVNSIAP--VQECSTQ-LDIVIVLDGSNSIYPWD--SVTAFLNDLLKRMDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ENKNEPCGARFGTAIAAVKDLNLDGFNDIVIGAPLEDDHGGAVYIYHG-SGKTIRKEYAQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SRAVFNET ----- KNSTRROTOVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLVGT
                                                                                         175 GPKOTOVGIVOYGENVTHEFNLNKYSSTEEVLVAAKKIVORGGROTMTALGTDTARKEAF
                                                                                                                         224 NITNGARKNAFKILIVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFR----SE
                                                                                                                                                                                     KSRQELNTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEG
                                                                                                                                                                                                                                                                                                              393 AIILRNRVQSL-VLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVD
                                                                                                                                                                                                                                                                                                                                                                                              FNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGGPRE-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           992 HSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQE------
                                                             -KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1094 -- IVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GEL-----RSENASLVLSSSN----
                                                                                                                                                                                                                                                                                                                                                                          SNGSTDLVLIGAPHY----
                                                                                                                                                                                                                                                                                                                                                                          452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1034
                                                                                                                                                      235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  904
                             120
                                                                                                                                                                                     279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                       g
                                                                                                                                              g
                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                          ò
                                                                                                                      ò
                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bloinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce) or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SECUENCE FROM N.A.
TISSUE=Fetal heart, and Osteoblast;
MEDLINE=99417678; PubMed=10486209;
Lehnert K., Ni J., Lehung E., Gough S.M., Weaver A., Yao W.P., Liu D.,
Wang S.-X., Morris C.M., Krissansen G.W.;
"Cloning, sequence analysis, and chromosomal localization of the novel
human integrin alphall subunit (ITGAll).";
Genomics 60:179-187(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE=Fetal muscle, and Uterus;
MEDLINE=99395147; PubMed=10464311;
Velling T., Kusche-Gullberg M., Sejersen T., Gullberg D.;
"CDNA Cloning and Chromosomal Localization of Human alpha(11)
Integrin. A collagen-binding, i domain-containing, beta(1)-associated integrin alpha-chain present in muscle tissues.";
J. Blol. Chem. 274:25735-25742(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Andreu N., Estivill X., Escarceller M., Sumoy L.;
Submitted (JUN-2000) to the EMBL/GenBank/DBJ databases.
-!- FUNCTION: INTEGRIN ALPHA-11/BETA-1 IS A RECEPTOR FOR COLLAGEN.
-!- SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-11
                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
JOUNTS: OBJUKQ1,
16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
28-PEB-2003 (Rel. 41, Last annotation update)
Integrin alpha-11 precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; AF109681; AAF01258.1; -.
EMBL; AF137378; AAD51919.2; -.
EMBL; AL359064; CAB94392.1; -.
EMSP; P17301; 1AOX.
Genew; HGNC.6136; ITGAll.
MIM; 604789; -.
GO; GO:0008305; C:integrin complex; TAS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE OF 954-1188 FROM N.A.
                                                                                       STANDARD;
                                                                                                                                                                                           Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE=Fibroblast
                                                                                         ITAH HUMAN
                                                                                                       셤
```

```
619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GODLIMDGLVDLIVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVF--ECNDQVVKGKE 632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   944
                                                                                                                                                                                                                                                                                                                                                                                                                                                            397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GDRFTNRAVLLSSGQELCERINFHVLD-TADYVKPVTFSVEYSLEDP-----DHGPMLD 764
                                                                                                      CEPIRL-----QVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLF 110
                                                                                                                                  GSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQ--LKKSK 168
                                                                                                                                                                                                                                                                                              199 IQVGVVQYGEDVVHEFHLNDYRSVKDVVBAASHIEQRGGTETRTAFGIEFARSBAFQ--K 256
                                                                                                                                                                                                                                                                  169 TLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLG-RTHTATGVRKVIRELLNITN 227
                                                           82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  680 KNS-TRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       892 MPRINKIE--FOLELPVKYAVYMVVISHGVSTKY---LNFTAS--ENTSRVMQHQYQVSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LGQ----RSLPISLVPLVPVRLNQTVIWDRPQVTFSENLSSTC----HTKERLPSHSDFLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            825 DTTVFIIESTRORVAVEATLENRGENAYSTVLNISQSANLQF--ASLIQKEDSDGS--IE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           935 ERDSTKEDNVAPLRFHLKYEADVLFTRSSSLSHYEVKLNSSLERYDGIGPPFSCIFRIQN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SRQGRVYVAGAPRENHTGKVILFTMHNNRSLTIHQAMRGQQIGSYFGSEITSVDIDGDGV
                                                                                                                                                                                                          257 GGRKGAKKVMIVIIDGESHDSP-DLEKVIQQSERDNVTRYAVAVLGYYNRRGINPETFLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             375 VVEDGVLLGAVGAYDWNGAVLKETSAGKVIPLRESYLKEFPEELKNHGAYLGYTVTSVVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TDVILVGAPMYFNEGRERGKVYVYEL---RQNRFVYNGTLKDSHSYQNARFGSSIASVRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QLDLNEDGLIDLAVGALGNAVILWSRPVVQINASLHFEPSKI--NIFHRDC-----KR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGEVRVCL------HVQKSTRDRLREGQIQSVVTYDLALDSGRPHSRAVFNET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DGWPTTLRVSVPFWNGCNEDEHCVPDLVLDARSDLPTAMEYCQRVLRKPAQDCSAYTLSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLA
                       FNLDTENAMTFQENARG-FGQSVVQ--LQGSR-VVVGAPQEIVAANQRGSLYQCDYSTGS
                                               GARKNAFKILIVITDGEKFGDPLGYEDVIPEADREGVIRYVIGV-----GDAFRSEKSRQ
                                                                                                                                                                                                                                                                                                                                                                                                                                    ELNTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ITSNGPLLSTVGSYDWAGGVFLYTSKEK----STFINMTRVDSDMNDAYLGYAAAIILR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NRV-QSLVLGAPRYQHIGLVAMF-RQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TDLVLIGAPHYYEQTR-GGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EDAQRLFTALFPFEKNCGNDNICQDDL-----
                                                                                                                                                                                     111
                                                                                                                                                                                                                                                                                                                                                   228
                                                                                                                                                                                                                                                                                                                                                                                                                                       283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            765
                                                                                                      57
                                                                                                                                               83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                  ያ ያ
                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ठे
                                                                                                      ઠે
                                                                                                                                             셤
                                                                                                                                                                                 Ś
                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
R GO; GO:0004895; F:cell adhesion receptor activity; TAS.
R GO; GO:0005518; F:cell adhesion receptor activity; TAS.
R GO; GO:0007517; P:muscle development; TAS.
R GO; GO:0007517; P:muscle development; TAS.
R InterPro; IPR002035; VWF_A.
R InterPro; IPR002035; VWF_A.
R Pfam; PF01839; FG-GAP; J.
R Pfam; PR01839; FG-GAP; J.
R PRINTS; PR01185; INTEGRINA.
R PRINTS; PR01185; INTEGRINA.
R SMART; SM0191; Int_alpha; S.
R PROSITE; PS00243; VWFAD, 1.
R PROSITE; PS00244; VWFN; 1.
R PROSITE; PS00244; VWFN; 1.
R PROSITE; PS00244; VWFN; 1.
R PROSITE; Calcium; Receptor; Glycoprotein; Transmembrane;
M Signal; Repeat Calcium; Magnesium; POlymorphism.
T SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    167;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18.6%; Score 1093.5; DB 1; Length ilarity 28.3%; Pred. No. 9e-66; Conservative 214; Mismatches 502; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MW; 60303C08A4A4CD52 CRC64;
                                                                                                                                                                                                                                                                                                                                                       INTEGRIN ALPHA-11.
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                            POTENTIAL.
CYTOPLASMIC (POTENTIAL).
FG-GAP 1.
FG-GAP 2.
VWFA.
FG-GAP 4.
FG-GAP 6.
FG-GAP 6.
FG-GAP 6.
FG-GAP 7.
PG-GAP 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-LINKED (GLCNAC, N-LINKED (GLCNAC, N-LINKED (GLCNAC, N-LINKED (GLCNAC, N-LINKED (GLCNAC, N-LINKED (GLCNAC, N-LINKED (GLCNAC, N-LINKED (GLCNAC, N-LINKED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /FTIG=VAR_009891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FTIG=VAR_009892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-LINKED (GLCNAC N-LINKED (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-LINKED (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FTIG=VAR_009889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FTIG=VAR_009890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FTIG=VAR_009893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FTIG=VAR 009894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             POTENTIAL.
POTENTIAL.
POTENTIAL.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIMILARITY.
SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  POTENTIAL.
BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1189 AA; 133609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6668
729
893
893
823
95
291
331
449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 349, Conserval
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             76
121
129
129
659
674
781
881
                                                                                                                                                                                                                                                                                                                                                     CHAIN
TRAMEM
DOMAIN
TRAMEM
DOMAIN
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SÉQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /ARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VARIANT
```

```
DOMAIN
TRANSMEM
DOMAIN
REPEAT
                                                                                                                                                                                                                                                                           DISULFID
                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VARIANT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              337
                                                                                                                                                                                                                                                                                                               DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22
                                                                                                                                                                                                CA BIND
CA BIND
CA BIND
                                                                                                                                                                                                                                                                DISULFID
                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                     DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VARIANT
                                                                                                                          DOMAIN
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VARIANT
                                                                                                                                                                            REPEAT
REPEAT
                                                                                                                                                               REPEAT
                                                                                                             REPEAT
  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                               ELRKAPVVNCSIAVCQRIQCDIPFFGIQEFNATLKGNLSFDWY----IKTSHNHLLIV 1052
                                                                                                                                                                                                                                                                                                                                                                                     Kamata T., Puzon W., Takada Y.;
"Identification of putative ligand binding sites within I domain of
integrin alpha 2 beta 1 (VLA-2,
Data). Chem. 269:9659-9665(1994)

-I. FUNCTION: INTEGRIN ALPHA-2/BETA-1 IS A RECEPTOR FOR LAMININ,
COLLAGEN, COLLAGEN C-PROPEPTIDES, FIBRONECTIN AND E-CAPHERIN. IT
RECOGNIZES THE PROLINE-HYPROXYLATED SEQUENCE G-F-9-G-E-R IN
COLLAGEN. IT IS RESPONSIBLE FOR ADHESION OF PLATELETS AND OTHER
CELLS TO COLLAGENS, MODULATION OF COLLAGEN AND COLLAGENASE GENE
EXPRESSION. FORCE GENERATION AND ORGANIZATION OF NEWLY SYNTHESIZED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EXTRACELLULAR MATRIX.

- SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-2
ASSOCIATES WITH BETA-1.

- SUBCELLULAR LOCATION: Type I membrane protein.
- DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
- SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
- SIMILARITY: Contains I VWFA domain.
- SIMILARITY: Contains 7 FG-GAP repeats.
                                                                                                                                                                                                           01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Integrin alpha-2 precursor (Platelet membrane glycoprotein Ia) (GPIa)
(Collagen receptor) (VLA-2 alpha chain) (CD49b) (Fragment).
                                               STAEILFNDSVFTLLPGQGAFVRSQTETKVEPPEVPN-----PLPLIVGSSVGGLLLLA
                                                                                                                                                                                                                                                                                                Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Cetartiodactyla, Ruminantia, Pecora, Bovoidea,
Bovidae, Bovinae, Bos.
                                                                                                 LITAALYKLGFFK--RQYKDMMSEGGPPGAEP 1136
                                                                                                                         -----PGLDP 1183
                                                                                                                                                                                     PRT; 1170 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pfam: PF001839; FG-GAP; 3.
Pfam: PF000357; integrin_A; 1
PRINTS; PF00095; vwa; 1.
PRINTS; PR00453; VWFADOMAIN.
PRINTS; RM00191; Int alpha; 5.
SMART; SM001327; VWA: 1
PROSITE; PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PS50234; VWFA; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                alpha.
                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
MEDLINE=94193647; PubMed=7511592;
                                                                                                               |: ||:|||||:
LLVLALWKLGFFRSARRRE-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PIR; 145914; 145914.
HSSP; P17301; 1AOX.
InterPro; IPRO00413; Integrin
InterPro; IPRO02035; VWF.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; L25886; AAB59255.1; -.
                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                      Bos taurus (Bovine).
                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=9913;
                                                                                                                                                                                  TIAZ BOVIN
P53710;
                       1052
                                                                                               1107
                                                                                                                        1159
                                               1053
                                                                                                                                                                          ITA2_BOVIN
                                                                       셤
                                                                                                                     g
                                                                                                                                                                                                   셤
                                               ò
                                                                                               ò
```

```
311 TKNLIKEIKAIASIPTERHFFNVSDEADLLEKAGTIGEQIFSIEGTVQG-GDNFQMEMSQ 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GSCEPIRLO-----VPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLC 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               79 TTCEXINLQTSTSMSNVTEMKTNMSLGLTLTRNVGTGGFLTCGPLWAQQCGSQYYTTGVC 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                108 FLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLK-- 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      166 KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLL----GRTHTATGVRKVIRE 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                195 PTKTQMGLIQYANNPRVVFNLNTFKSKD---EMIKATSQTFQYGGDLTNTFKAIQYARDT 251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EGFSAAIT -- SNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT -- RVDSDMN-DAYLGYA 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FULDTENAMTFQ-ENARGFGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQC--DYST 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              222 LLNITNGARKNAFKILIVITDGEKFGDPLGYEDVIPEADREGVIRYVIGV-----GDAFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19 YNVGLPKAKIFSGPSSEQFGYAVQOFINPKGNWLLVGSPWSGFPKNRMGDVYKCPVDLST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          277 SEKSRQELNTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CELL ATTACHMENT SITE (POTENTIAL).
GFEKR MOTIF.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCNAC. ...) (POTENTIAL).
N-LINKED (GLCNAC. ...) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
18.5%; Score 1084; DB 1; Length 1170;
Best Local Similarity 27.7%; Pred. No. 3.8e-65;
Matches 336; Conservative 216; Mismatches 495; Indels 168;
adhesion; Receptor; Glycoprotein; Transmembrane;
                                Signal; Repeat; Polymorphism; Calcium; Magnesium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-LINKED (GLCNAC. . .) (POTE
G -> V
R -> K.
R -> S
MW, EECEFIC5F2448FB1 CRC64;
                                                                                                                  INTEGRIN ALPHA-2.
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                      CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  POTENTIAL. POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FG-GAP 7.
POTENTIAL.
                                                                                                                                                                                                                                                    FG-GAP 1.
FG-GAP 2.
                                                                                                                                                                                         POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-LINKED
N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..
                                                                                                                                                                                                                                                                                                                                            FG-GAP
                                                                                                                                                                                                                                                                                                                                                                                                          FG-GAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  128929
                                                                                           1170
1121
1121
1143
                                                                                                                                                                                                                                                                                                                                                                                                          538

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6599

6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               748
945
063
070
                                                                                                                                                                                                                                                                                                              367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              725 72
1170 AA;
                                                                                                                                                                                                                                                                                                              177
                                                                                                                                                                                                                                                                                                                                                                                423
                             Platelet; S
NON TER
SIGNAL
CHAIN
```

```
REPEAT
CA_BIND
1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -----SVITHIPQYTKDKNPLMYLTGVHTDQAGDISCEAEINPLKIGQTSSSVSFKSEN 1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        908
                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                  677
                                                                                                                                                                                                                                                                                                                                                                               | :: ::::| | | | | :| NKNAEI------KLKLCF-|--SAKFRPTNQNNQVAIVYNITIDEDQFSSRVISRGLFK 707
                                                                                                                                                                                                                                                                                                                                                                                                                                  ETKNSTRROTOVLGLTQTCE -- TLKLQLPNCIEDPVSPIVLRLNPSL -- VGTPLSAFGNL 733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   484
                                                                                                                   CSVDVDSNGSTDLVLIGAPHYYEQTR--GGQVSVCPLPRGQRARWQCDAVLYGEQGQPWG 503
                                                                                                                                                                                                                                                                            621
  370 VGFSAEYSPQNNILMLGAVGAYDWSGTVVQKTPHGHLIFSKQAFEQILQDRNHSSYLGYS 429
                                                                                                                                                                                                 RFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSORIAGS--KL 561
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ENNERCLOKIMIVSQAQRCSEYIIHIQEPS---DIISPLNLCMNISLENPGT-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | :: : | | : : | | | | | | | : : | | : : | | : : | | : | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQR-----SLPISLVFLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FRHIKELNCRTASCSNIMCWLRDLQVKGEYFLNVSTRIWNGTFAASTFQTVQLTAAABID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LRKAPVVNCSIAVCQRIQCDIPFFGIQEFFNATLKGNLSFDWYIKTSHNHLLIVSTABI-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LFNDSVFTL------LPGQGAFVRSQTETKVEPFE-VPNPLPLIVGSSVGGLLLLALITA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTA2_MOUSE STANDARD;
062469; 062163;
15-JUL-1998 (Rel. 36, Created)
15-JUL-1998 (Rel. 36, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Integrin alpha-2 precursor (Placelet membrane glycoprotein Ia) (GPIa)
(Collagen receptor) (VLA-2 alpha chain) (CD49b)
                                                                                                                                            ECNDOVVKGKEAGEVRVCLHYQKSTRDRLREGQIQSVVTYDLALD----SGRPHSRAVFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITF----SFMSLDCLVVGGPREFNVTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      757 NPALEAYSETVKVFSIPFHKDCGDDGVCISDLVLNVQQLPATQQQPFIVSNQNKRLTFSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TVRNDGEDSYRTQVTFFFPUDLSYRKVSTLQNQRSQRSWRLACESASST-EVSGALKSTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CSINHPI PPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DAEIHIT-RSTNINFYEVSLDGNVSSVV-HSPE--DIGPKFIFSIKVTTGSVPVSMA---
                                                                                                                                                                                                                       AAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANV-----KGTQIGAYFGASL
                                                                   430 VASISTGNSVHFVAGAPRANYTGQIVLYSVN----ENGNVTVIQSQRGDQIGSYFGSVL
                                                                                                                                                                                                                                                                            SPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMBFNPREVARNVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Craniata, Vertebrata, Euteleostomi,
Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1111 ALYKLGFFKRQYKDM 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYNPQIYVIEENTVTIP--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=10090;
                                                                                                                                                                                                                                       542
                                                                                                                                                                                                                                                                              299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1001
                                                                                                                                                                                                 504
                                                                                                                                                                                                                                                                                                                                                           622
                                                                                                                                                                                                                                                                                                                                                                                                  629
                                                                                                                                                                                                                                                                                                                                                                                                                                      678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OCC OS GE DE LA LO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                          ò
                                                                             a
                                                                                                                     ઠે
                                                                                                                                                          g
                                                                                                                                                                                                 8
                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@ib-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ASSOCIATES WITH BETA-1.

- SUBCELLULAR LOCATION: TYPE I membrane protein.

- DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.

- SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.

- SIMILARITY: Contains 1 VWFA domain.

- SIMILARITY: Contains 7 FG-GAP repeats.
                                                                                                                                                                                                                                                              Edelman J.M., Chan B.M., Unival S., Onodera H., Wang D.Z., Damjanovich L., Latzer D.B., Finberg R.W., Bergelson J.M.; The mouse ViA.2 homologue supports collagen and laminin adhesion but not virus binding."; Cell Adhes. Commun. 2:131-143(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EXTRACELLULAR (POTENTIAL).
POTENTIAL.
CYTOPLASMIC (POTENTIAL).
FG-GAP 1.
FG-GAP 2.
WFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROSITE; PS00342; INTEGRIN ALPHA; 1.
PROSITE; PSS0234; VWPA; 1.
Integrin; Cell adhesion; Receptor; Glycoprotein;
Platelet; Signal; Repeat; Calcium; Magnesium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BY SIMILARITY.
INTEGRIN ALPHA-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PIR; S44142; S44142.
HSSP; P17301; 1AOX.
MGD; MG196600; 1tga2.
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002035; VWF_A.
Pfam; PF001857; integrin_A; 1.
Pfam; PF001857; vwa; 1.
SEQUENCE FROM N.A.
STRAIN=C57BL/6 X CBA; TISSUE=Lung;
MEDLINE=94363406; PubMed=8081889;
                                                                                                                                                                                             SEQUENCE OF 450-1178 FROM N.A.
TISSUE-Lung;
MEDLINE=94355691; PubMed=7521231;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRINTS; PRO1165; INTEGRINA.
PRINTS; PRO0423; VWFADOMAIN.
SMART; SMO0191; Int_alpha; 4.
SMART; SMO0327; VWA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; Z29987; CAA82877.1; -. EMBL; X75427; CAA53178.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1129
1151
1178
100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CHAIN
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REPEAT
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EPEAT
```

```
$
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A., AND SEQUENCE OF 30-44.
TISSUE=Endothelial cells;
MEDLINE=89308879; PubMed=2545729;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GLLLLALITAALYKLGFFKROYKDM 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GILLLLAMTAGLWKLGFFKROYKKW 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Takada Y., Hemler M.E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      [4]
VARIANT HPA-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HUMAN
                                                                                                                                     694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1081
                                              718
                                                                                           738
                                                                                                                                                                                  789
                                                                                                                                                                                                                            824
                                                                                                                                                                                                                                                                        848
                                                                                                                                                                                                                                                                                                                     872
                                                                                                                                                                                                                                                                                                                                                               906
                                                                                                                                                                                                                                                                                                                                                                                                         929
                                                                                                                                                                                                                                                                                                                                                                                                                                                      926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KESULT 13
ITA2 HUMAN
                                                                               ઠે
                                                                                                                         8
                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                      ठे
                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            윱
                                                                                                                                                                    ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |:: | |:: | |:: | |:: | |:: | | |:: | |:: | |:: | |:: | |:: | |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: |:: 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |||| :: :| |||: ||: || ||: || VGFSADYAPQNDILMLGAVGAFDWSGTLVQETSHKPVIFPKQAFDQVLQDRNHSSFLGYS 437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FLFGSNLRQQPQ----KFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           K - - KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLG-RTHTATGVRKVIRE 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEKSRQELNTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQ 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EGFSA--AITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT--RVDSDMN-DAYLGYA 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      438 VAAISTEDGVHFVAGAPRANYTGQIVLYSVNK---QGNVTVIQSHRGDQIGSYFGSVLCS 494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GSCEPIRLQ-----VPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FNLDTENAMTFQ-ENARGFGQSVVQL---QGSRVVVGAPQEIVAANQRGSLYQC--DYST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       222 LLNITNGARKNAFKILIVITDGEKFGDPLGYEDVIPEADREGVIRYVIGV-----GDAFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANV----KGTQIGAYFGASLCS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VDVDSNGSTDLVLIGAPHYYEQTR - - GGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPR-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   - LQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               611 HLQFFGRSLDGYGDLNGDSITDVSIGALGQVIQLWSQSIADVAIEALFTP------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTYDLALD----SGRPHSRAVFNET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                     CELL ATTACHMENT SITE (POTENTIAL).

GFERR MOTIF.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 1072; DB 1; Length 1178;
Pred. No. 2.5e-64;
Mismatches 487; Indels 188;
                                                                                                                                                                                                                                                                                                                                                                                                                                   CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                 1F194B9C0240F465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 28.1%; Ex. Matches 344; Conservative 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18.2%;
28.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAALTVLGDVNGDKLTDVAI
                                                                                                                                                                                                                                                                                                                                                                                                                                   128926
                                                                                                                                                                                                                                                                                                                                                             1054
1071
1078
                                                                                                                                                                                                                                                                                                                                                                                                                                   Ä
                                                                                                                                                                                                                                                                      429
457
472
696
1054
1071
1078
                                                                                                                                                                                                                                               601
                                                                                    DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           91
                                                                                                                                                                             DISULFID
                                                                                                                                                                                                                         CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                           CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          624
                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
CA_BIND
CA_BIND
SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query
Best L
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
```

```
STCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDW 1040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1041 YIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVG 1100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FAASTFQTVQLTAAAEIDTHNPQLFVIEENAVTIPLMIMKPTEKAEVPT--GVIIGSIIA 1138
                                                                                                                                                                                                                                                                                                                                                                                                                                 VKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQR-----SLPISLV 955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    : | : : | : : : : : | | : : | LLYDABLHLT-RSTNINFYEISSDENAPSVIK---SVEDIGPKFIFSLKVTAGSAPVSMA 984
737
                                                                                                                                                                                                                                                                                                                         VILKNRGESAYNTVVLAEFSENLFF------ASFSMPVDGTEVTCEVGSSQKSV 871
KNSTRRQTQVLGLTQTCET - - LKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLRPVL
                                         SERFLQKUMVVNEVQKCSEHHISIQKPS-----PAL
                                                                                                                                                                 EAYSETVKVFSIPFYKECGSDGICISDLILDVQQLPAIQTQSF----IVSNQNKRLTFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FLV-----PVRLNQTVIWDRPQVTF-SENLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "The primary structure of the VLA-2/collagen receptor alpha 2 subunit (platelet GPIa): homology to other integrins and the presence of a possible collagen-binding domain.";
                                                                                                                                  -- TFSFMSLDCLVVGGPREFNVT
                                                                                                                                                                                                                                                                                                                                                                                              SCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTE--FQLELP
                                                                                                                                                                                                                                                               VTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASST-EVSGALKST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GPIa)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=98019223; PubMed=9353312;
Emaley J., King S.L., Bergelson J.M., Liddington R.C.;
"Crystal structure of the I domain from integrin alpha2betal.";
J. Biol. Chem. 272:28512-28517(1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ia)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kuldanek
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rieder M.J., Armel T.Z., Carrington D.P., Ozuna M., Kuld
Rajkumar N., Toth E.J., Yi Q., Nickerson D.A.;
Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           X-RAY CRYSTALLOGRAPHY (2.1 ANGSTROMS) OF 168-368.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-AUG-1990 (Rel. 15, Created)
01-AUG-1990 (Rel. 15, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
Integrin alpha-2 precursor (Platelet membrane g
(Collagen receptor) (VLA-2 alpha chain) (CD49b)
ITGA2.
                                                                                                                               AEDAQRLFTALFPFEKNCGNDNICQDDLSI----
```

```
DOMAIN
TRANSMEM
DOMAIN
DOMAIN
REPEAT
REPEAT
BOMAIN
REPEAT
                                                                                                                                                                                                                     CA_BIND
CA_BIND
CA_BIND
CA_BIND
SITE
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                               DISULPID
DISULPID
DISULPID
                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
CARBOHYD
CARBOHYD
VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAND
STRAND
STRAND
STRAND
HELIX
TURN
HELIX
TURN
HELIX
TURN
STRAND
STRAND
STRAND
STRAND
HELIX
TURN
TURN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TURN
STRAND
TURN
HELIX
                                                                                                                                                                                                     REPEAT
   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce) or send an email to license@isb-sib.ch)
                                                                             The inpact of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the 
                                                                                                                                                                                                                                                                                                                                            R Genew; HORI: 10.2-AUG-U1.

R Genew; HORI: 6137; ITGA2.

R Genew; GC: 0000586; C:plasma membrane; TAS.

GO; GO:000586; F:cell adhesion receptor activity; TAS.

GO; GO:0005518; F:cell adhesion receptor activity; TAS.

GO; GO:000759; P:cell adhesion; TAS.

GO; GO:0007397; P:blood coaglation; TAS.

GO; GO:0007397; P:blood coaglation; TAS.

R GO; GO:0007397; P:blood coaglation; TAS.

R GO; GO:0007397; P:blood coaglation; TAS.

R GO; GO:0007397; P:blood coaglation; TAS.

R GO; GO:0007397; P:blood coaglation; TAS.

R GO; GO:0007397; P:blood coaglation; TAS.

R GO; GO:0007397; P:blood coaglation; TAS.

R GO; GO:000327; VWA; A.

R PRINTS; PRO1185; INTEGRINA.

R PRINTS; PRO191; Int alpha; 5.

R SMART; SM00327; VWA; 1.

R PROSITE; PSSC0234; VWA; 1.

R PROSITE; PSSC0234; VWA; 1.

R PROSITE; PSSC0234; VWA; 1.

R PROSITE; PSSC0234; VWA; 1.

R PROSITE; PSSC0234; VWA; 1.

R PROSITE; PSSC0234; VWA; 1.

R PROSITE; PSSC0234; VWA; 1.

R PROSITE; PSSC0234; VWA; 1.

R PROSITE; PSSC0234; VWA; 1.

R PROSITE; PSSC0234; VWA; 1.

R PROSITE; PSSC0234; WWA; 1.

R PROSITE; PSSC0234; WWA; 1.

R PROSITE; PSSC0234; WWA; 1.

R PROSITE; PSSC0234; WWA; 1.

R PROSITE; PSSC0234; WWA; 1.

R PROSITE; PSSC0234; WWA; 1.
                                              "The human platelet alloantigens Br(a) and Brb are associated with single amino acid polymorphism on glycoprotein Ia (integrin subunit
MEDLINE-94043762, PubMed=7901236,
Santoso S., Kalb R., Walka M., Kiefel V., Mueller-Eckhardt C.,
Newman P.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>:</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <del>:</del> :
```

```
43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                           (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels 188;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18.2%; Score 1069; DB 1; Length 1181; 27.0%; Pred. No. 4e-64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          129295 MW; 7E1B7ED968A94070 CRC64;
INTEGRIN ALPHA-2.
EXTRACELLULAR (POTENTIAL).
                      CYTOPLASMIC (POTENTIAL).
INTERACTION WITH HPS5.
FG-GAP 1.
FG-GAP 2.
                                                                                                                                        BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
                                                                                                                                                                                                                                                                              (IN ALLOANTIGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 18.2%; Score 1069; DB 1; 1
Best Local Similarity 27.0%; Pred. No. 4e-64;
Matches 331; Conservative 212; Mismatches 494;
                                                                                                                                                                                                                                                                                     dbsNP:1801106).
/FTId=VAR_003977
                                                                                                                                  GFFKR MOTIF
                                                                FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
POTENTIAL.
POTENTIAL.
                POTENTIAL.
                                                                                                                           POTENTIAL
                                                                                                                                                                                                                                                                              u
                                                                                                                                                                                                                                                                                                      363 36
1181 AA;
                                                                                                          HELIX
STRAND
HELIX
HELIX
TURN
SEQUENCE
```

ŧ,

989 LPSHSDFLAEI 1048 1049 LLIVSTAEI-1 1092 VGLTAAABIN 1101 GLLLLALTA 1142 GILLLALTA	THESULT 14  ITAG HUMAN  STANI  DT TAGG HUMAN  TAGG HUMAN  T 16-OCT-2001 (Rel. 4)  DE INCEPTO 10 (Rel. 4)  DE INCEPTO 10 (Rel. 4)  GN HOMO SADIENT 10 PO  GN HOMO SADIENT 10 PO  GN HOMO SADIENT 10 PO  NUCBI TAXID=966;  RN TSSUE=ARTICULAR CA  REDINERS FROM N.A.  RESULENCE FROM N.A.  RESULENCE FROM N.A.  RESULENCE FROM N.A.  RESULENCE FROM N.A.  RESULENCE FROM N.A.  RESULENCE FROM N.A.  RESULENCE FROM N.A.  RESULENCE FROM N.A.  RESULENCE FROM N.A.  RESULENCE FROM N.A.  RESULENCE FROM N.A.  RESULENCE FROM N.A.  RESULENCE FROM N.A.  RESULENCE FROM N.A.  RESULENCE AND J.,  RASSOCIATES WITH  C SUMCILLULAR LOCC  SUMCILLULAR LOCC  SUMCILLULAR LOCC  SUMCILLULAR LOCC  SUMCILLULAR LOCC  SUMCILLULAR LOCC  SUMCILLULAR LOCC  SUMILARITY: CON  C SIMILARITY: CON  C.	60404 <i>2;</i> 0:000830 0:000489 0:000551
8 8 8 8 8 8	######################################	
FNLDTENAMTPO-ENARGEGOSVVQLOGSRVVVGAPQEIVAANQRGSLYQCDXST 54	166 KSKTLFSLMOYSBERRIHFTREPONNENBLVKDITOLLG-RTHTATGVRKVIRELLN 224 206 PPIKTOVELLOYANDRAVENDLATKTKTERMIVATGOTSOYGOTTATFCALOVARKYXS 25 225 ITNGARRAM-KILLIVITDGERKGDPLGYEDVIPEADREGUITATFCALOVARKYXS 25 226 AASGGRESATKAM-VANDERSH-GSMLAALTOCHHNILRECALAVLGYLANALDITKN 324 280 SROELNTISKRPPHDHYPOWARFEALKTTGVOLERITERIEGTOTGSSSSFEHENSGGGF 339 325 LIKELKALASIFTREYPRYDEAALLERAACTAGOTERITERIEGTOTGSSSSFEHENSGGGF 339 326 LIKELKALASIFTREYPRYDEAALLERAACTAGOTERITERIEGTOTGSSSSSFEHENSGGGF 339 327 LIKELKALASIFTREYPRYDEAALLERAACTAGOTERITERIEGTOTGSSSSSFEHENSGGGF 339 326 SAATTSKGPLLSTVGSYDARGOVELTYSKEKSTFILMTKTWISDM-DQHYBARJ 413 327 LIKELKALASIFTREYPRYDEAALLERAACTAGOTERITERIEGTOTGSSSSSFEHENSGGGF 339 326 LIKELKALASIFTREYPRYDGTIVLYSWNENGHITVIOAHRODIGSYFGSULGS 327 LIKELKALASIFTREYPRYDGTIVLYSWNENGHITVIOAHRODIGSYFGSULGS 328 AALTVACHOVACAPRYCHIGLAVANFROATHAFTRAGTICACHAPRACTAGALCSY 439 329 DUDDOTTITOVLLVGAAPRYCHIGLAVANFROATHAFTRAGTICACHAPRACTAGALCSY 439 320 DUDDOTTITOVLLVGAAPRYCHIGLAVANFROATHAFTRAGTICACHAPRACTAGALCSY 430 320 LIKELKALASDINMOGENDYLGGGEDNRAATYTHAGTICACHAPRACTAGALCSY 430 320 LIKELKALASDINMOGENDYLGGGEDNRAATYTHAGTICACHAPRACTAGALCSY 430 321 LIKELKALASDINMOGENDYLGGGEDNRAATYTHAGTICACHAPRACTAGALCSY 430 322 ENCLORMYVAQAACTAGATAGATAGATAGATAGATAGATAGATAGATAGAT	YTKEKNPLMYLTGVQTDKAGDISCNADINPLKIGQTSSSVSFKSENFRHTKEHTKEHTKEHTKE
6 6 6 6 6		à 4

```
ntry is copyright. It is produced through a collaboration s Institute of Bioinformatics and the EMBL outstation - informatics Institute. There are no restrictions on its it institutions as long as its content is in no way statement is not removed. Usage by and for commercial a license agreement (See http://www.isb-sib.ch/announce/to license@isb-sib.ch).
ELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNH 1048
                     -LENDSVFTLLPGQGAFVRSQTETKVEPFEVPNP----LP--LIVGSSVG 1100
                                                                                         hondrocytes;
PubMed=9665391;
Tu, Lundgren-Aakerlund E.;
U., Lundgren-Aakerlund E.;
ig, and sequence analysis of the integrin subunit ssociated collagen binding integrin expressed on
                                                                                                                                                                                                                                                                                                                                                                                                  "", Chordata; Craniata; Vertebrata; Euteleostomi; ; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C:integrin complex; TAS. F:cell adhesion receptor activity; TAS. F:collagen binding activity; TAS.
                                                                                                                                                                                                                                                                                                                  40, Last sequence update)
41, Last annotation update)
                                                                                                                                                                                                                                                               PRT; 1167 AA
                                                                                                                                                          AALYKLGFFKRQYKDM 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     :20383-20389(1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AC31952.1; -.
AF21944.1; -.
AF61638.1; -.
                                                                                                                                                                                                                                                                                                40, Created)
                                                                                                                                                                                                                                                                                                                                                        precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ITGA10.
                                                                                                                                                                                                                                                               NDARD;
```

```
1050 LIVSTAEILFNDSVFTLLPGGGAFVRSQTETKVBPFEVPNPLPLIVGSSVGGLLLLALIT 1109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       974 VONLGCYVVSGLIISA--LLPAVAHGGNYFLSLSQVI-----TNNASCIVQNLTEP 1022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           942 VSNLG---ORSLPISLVFLVP-----VRLNOTVIWDRPQVTFSENLSSTCHTKERL 989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     769 --PVLNEGSPTSIQKLVPFSKDCGPDNECVTDLVLQ---VNMDIRGSRKAPFVVRGGRRK 923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       897 KTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQY---------0 941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       : |: | : | : | 373
                                                                                                                                                                                                                                                                                                                                                                        VENET -- KNSTRROTOVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFGN 732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     733 LRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDC------LVVGGPRE 784
                                                                                                                                                                                     AYFGASLCSVDVDSNGSTDLVLIGAPHYY--EQTRGGQVSVCPLPRGQRARWQCDAVLYG 496
                                                                                                                                                                                                                                                                                                                                                                                                                               785 FNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  845 KSTSCSINHPIFPENSEVTFNITFDVDSKASLG---NKLL-----LKANVTSENNMPRTN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                873 HARLCSVGHPVPQTGAKVTFLLEFEFSCSSLLSQVFGKLTASSDSLERNGTLQENTAQT-
                                                                                                                                                                                                                                                                                                                 PSHSDFLAELRKAPVVNCSIAVCORIOCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNHL
                  V-GDAFRSEKS----RQELNTIASKPPRDHVFQVNNFBALKTIQNQLREKIFAIEGTQTG
                                     PGPPVHPEELQHTNRLNGSNTQCQVVRCHLGQLAKGTEVSVGLLRLVHNEFFRRAKFKSL
                                                                         SSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDS----
                                                                                                                               382 -DMNDAYLGYA-AAIILRNRVQSLVLGAPRYQHIGLVAMFR-QNTGMWESNANVKGTQIG
                                                                                                                                                                                                                                          EQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFHGTSGSGISPSHSQRI
                                                                                                                                                                                                                                                                                                 557 AGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREV
                                                                                                                                                                                                                                                                                                                                                       ARNVFECNDOVVKGKEAG - - EVRVCLHVQKSTRDRLREGQIQSVVTYDLALDSGRPHSRA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1990 (Rel. 16, Created)
01-NOV-1990 (Rel. 16, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT; 1180 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1110 AALYKLGFF-----KROYK 1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |:|||||
1142 FCLWKLGFFAHKKIPEEEKREEK 1164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTA1 RAT
P18614;
                                                                           326
                                                                                                                                                                                      439
                                                                                                                                                                                                                  484
                                                                                                                                                                                                                                             497
                                                                                                                                                                                                                                                                       542
                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                        617
                                                                                                                                                                                                                                                                                                                                                                                  099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ITAL RAT
ID ITAL
AC P186
DT 01-N
DT 15-S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                          셤
                                                                         δ
                                                                                                  셤
                                                                                                                                                        셤
                                                                                                                                                                                      ò
                                                                                                                                                                                                             유
                                                                                                                                                                                                                                         ઠે
                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SVFSSGICARVDASFQPQGSLAPIAQR-CPTY-MDVVIVLDGSNSIYPWSEVQTFLRRLV 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAPCAKGHLGDYQLGNSSHP-----AVMMHLGMSLLETDGDGGFMACAPLWSRACGS 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NTYVKGLCFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHD----FRRM- 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGVRKVIRELLNITNGARKNAFKILIVITDGEKF-GDPLGYEDVIPEADREGVIRYVIG 270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ||||| : | | || : | | || : || || || || FILDEHHPRLFPGPPEAEFGYSCVLQHVGGGQRWMLVGAPWDGPSGDRRGDVYRCPVGGAH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ------DYSTG-SCEPIRLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -KEFVSTVMEQLKKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGR-THT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FNLDTENAMIFQENARG-FGQSVVQLQGSR----VVVGAPQEIVAANQRGSLYQC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 18.1%; Score 1065.5; DB 1; Length 1167; Best Local Similarity 29.3%; Pred. No. 6.8e-64; Matches 358; Conservative 196; Mismatches 488; Indels 181;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          I -> L (IN REF. 2).
G -> V (IN REF. 2).
E -> D (IN REF. 2).
MW, AE7D3A1C25C1AEAO CRC64;
                                                                                                                                                                                      POTENTIAL.
INTEGRIN ALPHA-10.
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
                                                                                                                                                                                                                                  POTENTIAL.
CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-LINKED (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY.
SIMILARITY.
SIMILARITY.
SIMILARITY.
                                                                                                                                                                                                                                                                                                   FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
POLY-LEU.
POTENTIAL.
                                                                                                                                                                                                                                                            FG-GAP 1.
FG-GAP 2.
VWFA.
                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                  POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                         BY
BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1039
844
844
909
926
926
1167 AA; 127573 M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1011
1018
1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     921
1011
1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISULFID
DISULFID
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
CARBOHYD
CARBOHYD
CONFLICT
                                                                                                                                                                                                     CHAIN
DOMAIN
TRANSMEM
DOMAIN
REPEAT
BEPEAT
REPEAT
REPEAT
REPEAT
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                     DOMAIN'
CA_BIND
CA_BIND
CA_BIND
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CONFLICT
```

g

ò

8 셤 ò g ò 임

ò

844

896 931

674

```
279 KSRQELNTIASKPPRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEG 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        57 CEP-IRLOVPVEA-----VNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGL 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      107 CFLFGSNLRQQPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLK- 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        166 -KSKTLFSLMOYSEEFRIHFTFKEFONNPNPRSLVKPITOLLG-RTHTATGVRKVIRELL 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                263 TEARGARRGVKKVMVIVTDGESH-DNYRLKQVIQDCEDENIQRFSIAILGHYNRGNLSTE 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  339 FSAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMT--RVDSDMND---AYLGYAAA 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       394 IILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSN 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GSTDLVLIGAPHY-----YEQTR-GGQVSVCPLPRGQRARWQCDAVLYGE 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29 FNVDVKNSMSFSGPVEDMFGYTVQQYENEEGKWVLIGSPLVGQPKARTGDVYKCPVGRER 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                89 AMPCVKLDLPVNTSIPNVTBIKENMTFGSTL-VTNPNGGFLACGPLYAYRCGHLHYTTGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 FNLDTENAMTFQENARG-FGQSVVQL---OGSRVVVGAPQEIVAANQRGSLYQCDYSTGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         224 NITNGARKNAFKILIVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFR----SE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
18.0%; Score 1060; DB 1; Length 1180;
Best Local Similarity 27.4%; Pred. No. 1.6e-63;
Matches 344; Conservative 201; Mismatches 478; Indels 234;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1007 1007 N-LINKED (GLCNAC. . .) (POTI 1084 1084 N-LINKED (GLCNAC. . .) (POTI 1103 1103 N-LINKED (GLCNAC. . .) (POTI 1114 1114 N-LINKED (GLCNAC. . .) (POTI 1180 Aa, 130808 MW; 8ESDA2BE02382EE4 CRC64;
                                         GFFRA MOLIF.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                             (GLCNAC.
(GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GLCNAC
                                                                                                                                                                                                                            (GLCNAC
                                                                                                                                                                                                                                                                                                                             (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GLCNAC
                                                                                                                                                                                                          (GLCNAC
                                                                                                                                                                                                                                                          (GLCNAC
                                                                                                                                                                                                                                                                              (GLCNAC
                                                                                                                                                                                                                                                                                            (GLCNAC
                                                                                                                                                                                                                                                                                                              (GLCNAC
                                                                                                                                                                                                                     N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
 CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
CARBOHYD
SEQUENCE
                                                  DISULFID
                                                                                    DISULFID
                                                                                                                                                    DISULFID
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
CARBOHYD
                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                         DISULFID
 윤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyight. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                         MEDLINE=99313197; PubMed=10386626;
Nolte M., Pepinsky R.B., Venyaminov S.Y., Koteliansky V.,
Gotwals P.J., Karpusas M.; Venyaminov S.Y., Koteliansky V.,
"Crystal structure of the alphalbetal integrin I-domain: insights into integrin I-domain function.";
PEBS Lett. 452.379-385(1999).
-!- FUNCTION: INTEGRIN ALPHA-1/BETA-1 IS A RECEPTOR FOR LAMININ AND COLLAGEN. IT RECOGNIZES THE PROLINE-HYDROXYLATED SEQUENCE G-F-P-G-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -!- SUBCELLULAR LOCATION: Type I membrane protein.
-!- DOMAIN: THE INTEGRIN I-DOMAIN (INSERT) IS A VWFA DOMAIN. INTEGRINS WITH I-DOMAINS DO NOT UNDERGO PROTEASE CLEAVAGE.
-!- SIMILARITY: BELONGS TO THE INTEGRIN ALPHA CHAIN FAMILY.
-!- SIMILARITY: Contains 1 VWFA domain.
-!- SIMILARITY: Contains 7 PG-GAP repeats.
                                                                     draniata; Vertebrata; Euteleostomi;
Șciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R EMBL, X52140; CAA36384.1; - PIR, 35854; A538634.1; - PIR, 35854; A538634.1; - PIR, 35854; A538634.1; - PIR, 35854; A538634.  
R PIROTPO; IPRO002035; VWF_A.  
R Pfam; PFO1839; FG-GAP; J.  
R Pfam; PFO1857; integrin_A; I  
R Pfam; PRO1905; VWF A.  
R PRINTS; PRO1915; VWFADOMAIN.  
R SWART; SM00191; Int. alpha; SWART; SM00191; Int. alpha; SWART; SM00191; Int. alpha; SWART; SM00191; Int. alpha; SWART; SM00191; Int. alpha; SWART; SM00191; Int. alpha; SWART; SM00191; Int. alpha; SWART; SM00191; Int. alpha; SWART; SM00191; Int. alpha; SWART; SM00191; Int. alpha; SWART; SM00191; Int. alpha; SWART; SM00191; Int. alpha; SWART; SM00191; Int. alpha; SWART; SM00191; Int. alpha; SWART; SM00191; Int. alpha; SWART; SM00191; Int. alpha; SWART; SM00191; Int. alpha; SWART; SM00191; Int. alpha; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART; SWART
                                                                                                                                                                    Ignatius M.J., Large T.H., Houde M., Tawil J.W., Barton A., Esch F., Carbonetto S., Reichardt L.F.; Molecular cloning of the rat integrin alpha 1-subunit: a receptor for laminin and collagen.";

J. Cell Biol. 111:709-720(1990).
Integrin alpha-1 precursor (Laminin and collagen receptor) (VLA-1)
(CD49a).
                                                                                                                                                                                                                                                                                                                                                                                                                                 E-R IN COLLAGEN.
SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA SUBUNIT. ALPHA-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INTEGRIN ALPHA-1.
EXTRACELLULAR (POTENTIAL)
POTENTIAL.
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                              X-RAY CRYSTALLOGRAPHY (2.1 ANGSTROMS) OF 151-364.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FG-GAP 1.
FG-GAP 2.
VWFA.
FG-GAP 3.
FG-GAP 4.
FG-GAP 5.
FG-GAP 5.
FG-GAP 6.
FG-GAP 7.
                                                                                                                                        SEQUENCE FROM N.A.
MEDLINE=90338125; PubMed=2380249;
                                                                    Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ASSOCIATES WITH BETA-1.
                                                     Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1142
1165
1180
103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
TRANSMEM
DOWAIN
REPEAT
BOWAIN
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REPEAT
CA BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REPEAT
                                                                                                                                                                                                                                          J. [2]
```

47;

Gaps

(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)

: :: SLKDNSCTKEN 561		KTİREAYAQRI 620		KVTMNFEPNKV 680	LALDSGRPHSR 673 :	vribsikoisk 733	EDPVSPIVLRL 718	HDFQDSVRVTL 776	TESEMSLDCLV 778	NVSTTEKSLLI 830	SWRLACESASS 837	SCESN 880	VTSENNMPRIN 896	SDSEEPLESLN 933	VMOHOYOVSNL 945	EINVFYTIRKR 991	972	EDPFGINSGKK 1045	CORIQCDI 1019	SDLSQVNVSLL 1088	VPTLLPGQGAF 1073	1123	QYKDMMSE 1128	IPLKKKMEK 1180
	OGGPWG-RFGAALTVLGDVNGDKLTDVAIGAPGEEDNRCAVYLFHGTSGSGISPSHSGRI	KNEPCGARFGTAIAAVKDLNVDGFNDVVIGAPLEDDHAGAVYIYHG-SGKTIREAYAQRI	AGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREV	PSGGDGKTLKFFGQSIHGEMDLNGDGLTDVTIGGLGGAALFWARDVAVVKVTMNFEPNKV	ARNVFECNDQVVKGKEAGEVRVCLHVQ-KSTRDRLREGGIQSVVTYDLALDSGRPHSR	NIQKKNCRVEGKETVCINATMCFHVKLKSKEDSIYEADLQYRVTLDSLRQISR	KNSTRRQTOVLGLTQTCETLKLQLPNCI	SFFSGTQERKIQRNITVRESECIRHSFYMLDKHDFQDSVRVTL	NFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLV		VGGPRE-FNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASS	VKSQHDKFNVSLTVKNKGDSAYNTRTVVQHSPNLIFSGIEEIQKD	TEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLL-LKANVTSENNMPRTN	QNITCRVGYPFLRAGETVTFKIIFQFNTSHLSENAIIHLSATSDSEEPLESLN	KTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNL	DNEVNISIPVKYEVGLQFY\$SASEHHISVAANETIPEFINSTEDIGNEINVFYTIRKR	GORSLPISLVFLVPVRLNQTVIMDRP	GHFPMPELQLSISFPNLTADGYPVLYPIGWSSSDNVNCRPRSLEDPFGINSGKK	VIFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI	CGVATITCSLLPSDLSQVNVSLL	PFEGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAF	GELKSENSSLTLSSSN	VRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE	RKRELAIQISKDGLPGRVPLMVILLSAFAGİLİLMİLILALWKIGFFKRPLKKKMEK
: :    SYTDLLLVGAPMYMGTEKEEQ				PSGGDGKTĹKFFĠQSIHĠEMI			AVFNETKNSTRRQTC	SFFSGTQERKIQRNITVRES	NFSLVGTPLSAFGNLRPVLA	DFNLT-DPENGPVLD				QNITCRVGYPFLR						MISKSEVLKRGTIQDCSSTC-		LWKPTF-IRAHFSSLNLTLRGELK		
502	4 98	562	557	621	617	681	674	734	719	777	179	831	838	881	897	934	946	995	973	1046	1020	1089	1074	1124
q <sub>C</sub>	ò	QQ	ò	g	ò	g	ò	Ор	ò	Op	ò	οp	ò	οp	ò	qq	ò	đ	ò	qq	ò	ОÞ	ò	q

Search completed: November 25, 2003, 14:17:38 Job time : 13.1742 secs

\_

1014 17.3 895 11 Q9WUF8 1013.5 17.3 1160 6 Q8WKF4 865 14.7 348 4 Q8TES5 852 14.5 1332 5 Q9BPQ8	13.7 205 11 963001 12.6 780 13 906271 12.6 823 4 QBWYIB 11.7 823 11 QBCEB4 11.4 1032 11 Q61289 10.9 1036 11 Q91YD5	640.5 10.9 630.5 10.7 619.5 10.5 614.5 10.5	579 9.9 1034 13 098TT7 550 9.4 1033 13 042598 534 9.1 1016 13 091779	530 9.0 9/4 11 Q524WZ 529 9.0 1073 11 Q8CC06 526 9.0 1047 6 Q9MZD6 F2F 8 9 1007 6 Q9CWA	525.5 8.9 100.7 8 QSCK48 512.5 8.7 1034 6 QSTUN4 509.5 8.7 1036 6 QSTUN6 505 5 1013 11 07000	491.5 8.6 1012 11 491.5 8.7 1049 5 Q 491.5 8.1 833 5 Q 469.5 8.0 1036 6 Q 468 5 8 0 604 13	ALIGNMENTS	25.1	AC USULBUR DT 01-OCT-2000 (TrEMBLrel. 15, Created) DT 01-OCT-2000 (TrEMBLrel. 15, Last sequence update) DT 01-MAR-2003 (TrEMBLrel. 23, Last annotation update) DE Integrin beta 2 alpha subunit.		RP SEQUENCE FROM N.A.  RA Fathallah D.M. Sr., Zerria K. Jr.;  RT "Cloning of the rat CD11b cDNA sequence.";  RL Submitted (MAX-2000) to He EMBL/Genbank/DDBJ databases.  DR EMBL, AF268953; AAF81280.1;	DR HSSP; P11215; 1BHO. DR InterPro; IPR000413; Integrin_alpha. DR InterPro; IPR002035; VWF.A. DR Pfam; PF01839; FG-GAP; S. DR Pfam: PF01839; TG-GAP; A: 1	DR Pfam; PP00092; vwa; 1	DR PROSITE; PS50234; VWFA; 1.  SQ SEQUENCE 1151 AA; 126943 MW; 8F785695D4074CAS CRC64;  Query Match 74.7%; Score 4387; DB 11; Length 1151;  Best Local Similarity 73.1%; Pred, No. 3e-313;	CONSELVATIVE TO THE PROPERTY OF THE PROPERTY O
GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.	OM protein - protein search, using sw model  Run on: November 25, 2003, 14:11:54; Search time 33:1068 Seconds (without alignments) 8862.397 Million cell updates/sec	Title: Perfect score: 5875 Sequence: 1 FNLDTENAMTFQENARGFGQFKRQYKDMMSEGGFPGAEPQ 1137	cable: BLOSUM62 Gapop 10.0 , Gapext 0.5	Searcned: 830525 Begs, 258052604 residues Total number of hits satisfying chosen parameters: 830525	Minimum DB seq length: 0 Maximum DB seq length: 200000000	Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries		4: sp_human:* 5: sp_invertebrate:* 6: sp_mammal:* 7: sp_mhc:*		14: sp_unclassfiled:* 15: sp_rvirus:* 16: sp_acteriap * 17: sp_archeap:*	Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.	Result Query Description Description	74.7 1151 11 Q90130 Q9ji30 rattus 66.5 1036 11 Q8CA73 Q8ca73 mus mus 64.9 920 6 Q28984 Q28984 Sus scri 59.3 1169 4 Q8IVA6 Q9dxA4 mus mus 55.3 1161 11 Q90XF4 Q90XF7 Q9dxA4 mus mus 55.3 1161 11 Q90XF7	1529.5 26.0 1161 11   Q9WTV4   Q9WtV4   1519 25.9 1160 11   Q9R200   Q9r200   Q9r200   Q9r200   Q98tf1	1036 1 20161 1167 11 088340 1167 11 088341 1171 13 042094 1038 11 Q8BS01

RESULT 2 08CA73 ID 08CA73 ID 08CA73 ID 08CA73 ID 08CA73 ID 08CA73 ID 08CA73 ID 08CA73 ID 08CA73 ID 01-MAR-2003 (TrEMBLrel: 23, Last sequence update) DT 01-MAR-2003 (TrEMBLrel: 23, Last sequence update) DT 01-MAR-2003 (TrEMBLrel: 23, Last annotation update) DT 01-MAR-2003 (TrEMBLrel: 23, Last annotation update) DE Integrin alpha M. OS BUARATOGA (MEDIA (MORE)) OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus. OC MART TaxID=10090; RN II) RP SEQUENCE FROM N.A. RC STRAIN=CSTSIAL/66; TISSUE-Spinal cord; RX The PANTOM Consortium, RA The PANTOM Consortium, RA The RIKEN Genome Exploration Research Group Phase I & II Team; RT 160,770 full-length cDNAs."; RA THE MISSUE Genome Exploration Phase I & II Team; RT 60,770 full-length cDNAs."; RM LABLY RA303944; BAC30350.1; DR EMBL; AR03944; BAC30350.1; SEQUENCE 1036 AA; 115126 MM; 4F4F39BFIE188E77 CRC64;	Query Match 66.5%; Score 3907.5; DB 11; Length 1036; Best Local Similarity 66.4%; Pred. No. 4.6e-278; Matches 756; Conservative 121; Mismatches 142; Indels 119; Gaps 2;	Qy 1 FNLDTENAMTPQENARGFGQSVVQLQGSRVVVGAPQE1VAANQRGSLYQCDYSTGSCEP1 60	OY 61 RLOVPVEAVNMSLGLSLAATTSPPOLLACGPTVHOTCSENTYVKGLCFLFGSNLRQQPQK 120	Qy 121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF 180	Qy 181 RHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI 240	Qy 241 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 300 	OY 301 NFBALKTIQNQLREKIFALEGTQTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG 360 	OY 361 GVPLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420 	Qy 421 QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 480 :	QY 481 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF 540 Db 451 450	Qy 541 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600 [	Qy 601 PVLRVKAIMEFNPREVARNYFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGGIQSVVT 660
61 RLQUPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLLRQOPGK 120 77 PLQVPPEAVNMSLGLSLAATTVPPQLLACGPTVHQNCKENTTYNGLCYLFGSNLLRKPQQ 136 121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMGCYKKTLFSLMQYSEEF 180 137 FPIH	421 ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 480               ::  :	481 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF 540 	541 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDL/TWDGLVDL/VGAQGHVLLLRSQ 600 	601 PVLRVKAIMEENPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGOIGSVVT 660      :-    -            -	661 YDLALDSGRPHSRAVFNETKNSTRROTOVLGITQTCETLKLQLPNCIEDPVSPIVLRINF 720 	721 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 780 	781 GPREFNYTVTVRNDGEDSYRTQYTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV 840  -	841 SGALKSTSCSINHPIFPENSEVTFNIFPDVDSKASLGNKLLLKANVTSENNMPRTNKTEF 900 	901 QLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960 	961 RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020   1	1021 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080 	1081 KVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQYKDMMSEGGPFGAEPQ 1137      -

엄

ò

원

g

ò g ò

ò

ద

g ò

ò

```
958 VPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQC 1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                957
                          MFRQNTGWMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSV 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  YLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLL 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          539
                                                                                                     297
                                                                                                                             357
                                                                                                                                                                                                                                                                                                          WAGGVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVA 417
                                                                                                                                                                                                                                                                                                                                     537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TEFQLELPVKYAVYVVVTSLEVSTKYFNFTASEKTRHVIEHQYQFNNLGQRKLPISVVFW
                                                                                                                                                                                                                                  WTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TEESTALKSTSCSINHPIFPDNSEVTFNVTFDVNPDAFLGYKLLLKANVTSENNMPSSNK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840 VPVRLNRVIVWDQPQVTFSQNLSRSCSTEEIGPRHSDFLEKLQKTPVLNCSIAVCQKIQC
                                                                                                                                                                                                     QVNNFBALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQ1QS
EEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKIL
                                                                                                     IVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QBIVA6 PRELIMINARY; PRT; 1169 AA.
QBIVA6;
Q1-MAR-2003 (TrEMBLrel. 23, Created)
O1-MAR-2003 (TrEMBLrel. 23, Last sequence update)
O1-MAR-2003 (TrEMBLrel. 23, Last annotation update)
Integrin, alpha X (Antigen CD11C (p150), alpha polypeptide).
Endono sapiens (Human).
Endaryota; Mctasoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1018 DIPFFGIQEEFNATLKGNLSF 1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DIPSFGIQEELKVTLKGNLSF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                868
                                                  61
                                                                                                                                                     121
                                                                                                                                                                                                        298
                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                             358
                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                             418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                     238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
Q8IVA6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SCC SE PER PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PRO
                                                                                                                                                                                                                                                                                                                                                                                          ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                  셤
                                                                                                8 6
                                                                                                                                                                                     슝
                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                        839
                                                                                                                                                                                                                                                                                                          899
                                                                                                                                                                                                                                                                                                                                                                                                             959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                858
                                                                                                  780
                                                                                                                                                                                                                                                        738
                                                                                                                                                                                                                                                                                                                                                             798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TKVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLGFFKRQXKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GHGALKSTTWNINHPIPPANSEVTFNVTFDVDSHASFGNKLLLKAIVASENNMSRTHKTK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PQKFPEALRGCPQQESDIAFLIDGSGSINRLDFQRMKEFVSTVMGQFQKSKTLFALMQYS
TLVGEPLRSFGNLRPVLAMDAQRFFTAMFPFEKNCGNDSICQDDLSIIMSAMGLDTLVVG
                                                                                                                                                                                                                                     840 VSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTE
                                                                                                                                                                                                                                                                                                                                                                                                                FOLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                        FQLELPVKYAIYMIVTSDESSIRYLNFTASEMTSKVIQHQYQFNNLGQRSLPVSVVFWIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYS
                                                                                                                                                                                                          GPREFNVTVTVTNDGEDSYR/TQVTFFFPLDLSYRKVSTLQNQRSQRSWRL-ACESASSTE
                                                                                                     SITESEMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Euteleostomi;
Sus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 3815.5; DB 6; Length 920;
Pred. No. 2.2e-271;
80; Mismatches 109; Indels 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.

Lee J(-K., Schook L.B., Rutherford M.S.;
Submitted (NOV-1995) to the EMBL/GenBank/DDBJ databases.
EMBL, 140072; AAB16869.1; -.
HSSP; P11215, 1BHQ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        920 AA; 102440 MW; E96CC51E350DD5AC CRC64;
                                                                                                     SLVGTPLSAFGNLRPVLAEDAORLFTALFPFEKNCGNDNICODDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sus scrofa (Pig).

Eukaryota, Metazoa, Chordata, Craniata, Vertebrata,
Mammalia, Eutheria, Cetartiodactyla, Suina, Suidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002013; VWF_A.
Pfam; PF01092; Vwa; 1.
Pfam; PF00092; Vwa; 1.
PRINTS; PR01185; INTEGRINA.
SWART; SM00191; Int_alpha; 4.
SWART; SM00191; Int_alpha; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           64.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-NOV-1996 (TrEMBLrel. 01,
01-FEB-1997 (TrEMBLrel. 02,
01-MAR-2003 (TrEMBLrel. 23,
CD11b (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 79.4°
Matches 731; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NON TER
NON TER
SEQUENCE
                                                  559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                118
                                                                                                                                                     619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          919
                                                                                                     721
                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                          619
                                                                                                                                                                                                                                                                                                                                                             739
                                                                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                                                                                             799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        028984
028984;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CD11B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 3
028984
AC 028981
D 02899
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 01-N
DT 0
```

g

셤

ò

ò 셤

974

1034

1094

SORTA

ò 윱 g

ઠે g ò

ò

q

qq

ઠે

d ò g ò g ò g ò

ò

```
TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   80 SLQVPPEAVNISLGLSLAAATNPSWLLACGPTVHHTCRENIYLTGLCFLLSSSFKQS-QN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RIHFTFKEFONNPNPRSLVKPITQLLGRIHTATGVRKVIRELLNITNGARKNAFKILIVI
VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                             1 FNLDTENAMIFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota, Metazoa; Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia; Eutheria; Rodentia, Sciurognathi; Muridae; Murinae, Mus
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.

Huang X., Gorski K., Tong C., Rattis F.-M., Tseng S.-Y., Pardoll
Tsuchiya H.;

Tsolation of Genes Selectively Expressed by Dendritic Cells.";
Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.

EMBL; AF211864; AAF23492.1; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           56.6%; Score 3326.5; DB 11; Length 1169; 57.2%; Pred. No. 3e-235;
                                                                                                                                                                      TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                          01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAR-2003 (TrEMBLrel. 23, Last annocation update)
Leukocyte adhesion glycoprotein p150,95 alpha integrin subunit.
                                                                                                                                                                                     1095 TVLEKYKVHNPTPLIVGSSIGGLLLALITAVLYKVGFFKRQYKEMMEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         652; Conservative 167; Mismatches 302; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C616412033C219A6 CRC64;
                                                                                                                                                                                                                                                                                Z
                                                                                                                                                                                                                                                                              1169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HSSP, P11215, iBHQ.
MGD, MGI:96609, Itgax.
InterPro; 1PR000413; Integrin_alpha.
InterPro; IPR002035; VWF_A.
Pfam; PP01839; FG-GAP; 5.
Pfam; PP00057; integrin_A; 1.
Pfam; PP00092; vwa: 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE, PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1169 AA; 129150 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRINTS; PRO1185; INTECRINA.
PRINTS; PR00453; VWFADOMAIN.
SMART; SM00191; Int_alpha; 4.
SMART; SM00327; VWA; 1.
                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Integrin.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S:
Matches 652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                             1020
                                                                                                                                                                      1080
                                                                              975
                                                                                                                                                                                                                                                                                                                                                                        ITGAX
                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                  RESULT
090XH4
                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                        a
                                                                                                                                     셤
                                                                                                                                                                   ò
                                                                                                                                                                                                  a
                                      ઠ
                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SNLELNAEVWVWNDGEDSYGTTVTFSHPAGLSYRYVAEGQKQQQLRSLHLTCDSAPVG-- 854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SCALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF 900
                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                        257
                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP 959
                                                                                                                                                                                                                                                                              137
                                                                                                                                                                                                                                                                                                                                          197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    317
                                                                                                                                                                                      9
                                                                                                                                                                                                                   79
                                                                                                                                                                                                                                                TOGKKEGDSLDYKDVIPMADAAGIIRYAIGVGLAFQNRNSWKELNDIASKPSQEHIFKVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                138 LPVSRQECPRQEQDIVFLIDGSGSISSRNFATWANFVRAVISQFQRPSTQFSLMQFSNKF
                                                                                                                                                                                                                                                                                                                                                                                             TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NFEALKTIONOLREKIFA TEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DFDALKDIONOLKEKIFAIEGTETTSSSFELEMAQEGFSAVFTPDGPVLGAVGSFTWSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAFLYPPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVOSLVLGAPRYQHTGKAVIFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ONTGMWESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         YDLALDSGRPHSRAVFNETKNSTRROTQVLGLTOTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GPREFNVTVTVTVRNDGEDS/YRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                               FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                           RIHFTFKEFONNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                        FNLDTEELTAFRVDSAGFGDSVVQYANSWVVVGAPQKITAANQTGGLYQCGYSTGACEPI
                                                                                                                                                                                      FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                        Gaps
                                                                                                                                                         9
                                                                                                                           Length 1169;
                                                                                                                                                         Indels
                                                                                            MW; A17B484FEFC79EB6 CRC64;
                                                                EMBL/GenBank/DDBJ databases
                                                                                                                           Query Match
59.3%; Score 3484; DB 4;
Best Local Similarity 61.5%; Pred. No. 7.9e-247;
Matches 694; Conservative 138; Mismatches 291;
                                TISSUE=Blood;
Strausberg R.;
Submitted (SEP-2002) to the
EMBL, BC038237; AAH38237.1;
SEQUENCE 1169 AA; 128521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        677
                                                                                                                                                                                                                     20
                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                              80
                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                        198
                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901
```

ο.

,

Gaps

9 79

Ω

ઠે

음 중 음

8 6

8 6 ò g

Ö

```
-GVRGRWQCEATLHGEQGHPWGRPGVALTVLGDVNGDNLADVAIGAPGEEESRGAVYIFH 558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  380 AFLYPDNIRPTFINMSQENVDMRDSYLGYSTAVAFWKGVHSLILGAPRHQHIGKVVIFTQ 439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EARHWRPKSEVRGTQIGSYFGASLCSVDVDRDGSTDLVLIGAPHYYEQTRGGOVSVFPVP 499
                                                                                                                                                                                                                                                                                                                                                                                                                                                   PEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEFR 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      182 IHFTFKEFONNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVIT 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PEALKTIQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAALTSNGPLLSTVGSYDWAGG 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFRQ 421
                                                                                                                                                                                                                                                                                                                                                                                               LQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQKF 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVNN 301
                                                                                                                                                                                                                                                                                                                                                         21 NLDVEEPIVFREDAASFGQTVVQFGSRLVVGAPLEAVANQTGRLYDCAPATGMCQPIV 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GASRLEIMPSPSORVTGSQLSLRLQYFGQSLSGGQDLTQDGLVDLAVGAQGHVLLLRSLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     200 THFTFTEFKNILDPQSLVDPIVQLQGLTYTATGIRTVMEELFHSKNGSRKSAKKILLVIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVTY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RGORARWOCDAVLYGEQGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLFH
                                                                                                                                                                                                                                                                                                                                           NLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPIR
                                                                                                                                                                                                                                                                                        DB 11; Length 1161;
                                                                                                                                                                                                                                                                                      Query Match 55.3%; Score 3251.5; DB 11; Lengt. Best Local Similarity 58.0%; Pred. No. 9.8e-230; Matches 654; Conservative 158; Mismatches 302; Indels
                                                                                                                                                                                                                                                               1161 AA; 126600 MW; 2258491A984A705E CRC64;
             STRAIN=Sprague-Dawley;
O'Brian M.M., VanderVieren M., Kilgannon P.D., Dietsch (Gallatin W.M.,
Cloning of rat alpha D, a novel beta 2 integrin.";
Submitted (AUG-1997) to the EMBL/GenBank/DDBJ databases.
EMBL, AF021334; AAF21241.1;
HSSP; P11215; 18HQ.
                                                                                                 InterPro; IPR000413; Integrin_alpha.
InterPro; IPR000413; VWF A.
InterPro; IPR002035; VWF A.
Pfam; PF001839; FG-GAP; 5.
Pfam; PF001837; Integrin_A; 1.
PRINTS; PR01185; INTEGRINA.
PRINTS; PR00191; Int_alpha; 4.
SWART; SW00191; Int_alpha; 4.
PROSITE; PS00242; INTEGRIN_ALPHA; 1.
                                                                                                                                                                                                                                                   Integrin.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                               62
                                                                                                                                                                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                                                                                                                                   122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                662
    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                    용
                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SLPISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCS 1008
                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                          GAFLYPSNMRPTFINMSQENEDMRDAYLGYSTALAFWKGVHSLILGAPRHQHTGKVVIFT 438
                                                                                                                                             480
                                                                                                                                                                                               540
                                                                                                                                                                                                                        557
                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                           617
                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                               675
                                                                                                                                                                                                                                                                                                                                                                                   735
                                                                                                                                                                                                                                                                                                                                                                                                           SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 780
                                                                                                                                                                                                                                                                                                                                                                                                                                     795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQ------NQRSQRSWR 829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          855
TDGRKQGDNLSYDSVIPMAEAASIIRYAIGVGKAFYNEHSKQELKAIASMPSHEYVFSVE
                                                                                                                                                           NFEALKTIONOLREKIFAIEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                      GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                              ONTGMMESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                               PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                P-GVGSRWHCGTTLHGEQGHPWGRFGAALTVLGDVNGDSLADVAIGAPGEEENRGAVYIF
                                                                                                                                                                                                                                                   HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                       PVLRVKAIMEFNPREVARNVPECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                    YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                       SDLELNVDVTVSNDGEDSYGTTVTLFYPVGLSFRRVAEGOVFLRKKEDQQWQRGGHSLH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LACESASSTEVSGALKSTSGSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NNMPRINKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASE-NTSRVMQHQYQVSNLGQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IAVCORIQCDIPPFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GOGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT; 1161 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota, Metazoa, Chordata,
Mammalia, Eutheria, Rodentia,
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAY-2000 (TrEMBLrel. 13, 01-MAY-2000 (TrEMBLrel. 13, 01-MAR-2003 (TrEMBLrel. 23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alpha D integrin.
Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                   949
                                                                  319
                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      890
                                        301
                                                                                                                                                                       439
                                                                                                                                                                                               481
                                                                                                                                                                                                                         499
                                                                                                                                                                                                                                                                              558
                                                                                                                                                                                                                                                                                                       601
                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        090YE7
                                                               셤
                                                                                           ò
                                                                                                              g
                                                                                                                                          8
                                                                                                                                                                    g
                                                                                                                                                                                          ò
                                                                                                                                                                                                                  음
                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RXCOCCEPTER
                                       ઠે
```

661

601

481

9

Gaps

13;

```
1044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              827
                                                                                                                                                                                                                                                                                                                                    409
                                                                                                                                                                                                                                                                                                                                                                  424
                                                                                                                                                                                                                                                                                                                                                                                                     467
                                                                                                                                                                                                                                                                                                                                                                                                                                      484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          527
304
                                                                                                                                                                                                                                                             351
                                                                                                                                                                                                                                                                                               364
                                                                                                                                                                                         291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PQ--FQGRLLANLSYTLQLDGHRMRSRGLFPDGSHELSGNTSITP-DKSCLDFHFHFFIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              :|::: | | || ||:||| | ANLTLSSPARS------GPLRLMSSASLAVEWTLSNSGEDAYWVRLDLDFPRGLSFRKV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             986 KE-RLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EDLKRPSSE---AEQPCLPGV------QFRCPIVF---RREILIQVTGTVELSKEIKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SHNHLLIVSTABILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S-STLSLCSSLSVSFNSSKHFHLYGSKA-SEAQVLVKVDLIHEKEMLHVYVLSGIGGLVL
                                                  KFPEALRGCPQEDSDIAFLIDGSGS11PHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEE
                                                                      180 FRIHFTFKEF-QNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILI
                                                                                                                                                                                         239 VITDGEKFGDPLGYEDVIPEADREG-----VIRYVIGVGDAFRSEKSRQELNTIASKP
                                                                                                                                                                                                               292 PRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLS
                                                                                                                                                                                                                                                                                                                                    352 TVGSYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPR
                                                                                                                                                                                                                                                                                                                                                    YOHIGLVAMFR - - QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYY
                                                                                                                                                                                                                                                                                                                                                                                                                       EQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PGEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAG-EVRVCLHVQKST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RDRLREGOIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IEDPVSPIVLRLNFSLV---GTPLSAFGN-LRPVLAEDAQRLFTALFPFEKNCGNDNICQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DDLSITFSFMSLDCLVVGGP-----REFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STLONORSORSWRLACESASSTEVSGAL-KSTSCSINHPIFPENSEVTFNITFDVDSKAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMLQ---PHSRMPVSCEEL--TEGSSLLTKTLKCNVSSPIFKAGQEVSLQVMFNTLLNSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LGNKLLLKANVTSEN-NMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       935 VMQHQYQV---SNLGQRSLPISLVFLVPVRLNQTVIWDRPQ--VTFSENLSS----TCHT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1105 LALITAALYKLGFFKRQYKDMM-SEGGPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            :||||
259 IITDG-
                                                                                                                                                                                                                                                                                                                                                                                                         410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               528
                     80
                                                    120
                                                                                       139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                       ठे
                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                         ઠે
                                                                            셤
                                                                                                                      ઠે
                                                                                                                                                   용
                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                 1019
                                                                                                                                                                                                                                                                                                                                    1029
                                                                                                                                                                                                                                                                                                                                                                                          37;
                                                    795
                                                                                                                                                            901
                                                                                                                                                                                           912
                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60 IRLQVPVEAVNMSLGLSLÅATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQ 119
                                                                                       841
                                                                                                                        854
                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          79
                                                                                                                                                                              --LESSSCSINHPIFFEGAKTTFMITFDVSYKAFLGDRLLLRAKASSENNKPDINKTAFQ
                                                                                                                                                                                                                                                                                                                                                                      1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        YNLDTRPTQSFLAQAGRHFGYQVLQIEDG-VVVGAPGE---GDNTGGLYHCRTSSEFCOP
                                                                                                                                                                                                                              LELPVKXAVYMVVTSHGVSTKYLNFTASENTSR-VMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                  FNLDTENAMTFQENA-RGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEP
                                        PREFINVIVIVRNDGEDSYRIQVIFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVS
                                                                                                           SPELIVIVIVANEGEDSYGTLVKFYYPAGLSYRRVIGTQ-QPHQYPLRLACEAEPAAQED
                                                                                                                                                                                                                                                                                                                       973 LLNGVAVWD----VTLSSPAQGVSCVSQMKPPQNPDFLTQIQRRSVLDCSIADCLHFRCDI
                     LVGTPLSAFGNLRPVLAEDAORLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGG
                                                                                                                                                            GALKSTSCSINHPIFPENSBVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEFQ
                                                                                                                                                                                                                                                                                                     RLNQTVIWDRPQVTFSENLSS-TCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Craniata, Vertebrata, Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1529.5; DB 11; Leus-
Pred. No. 4.3e-103;
"..marches 456; Indels 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMM 1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
STRAIN-DBA/2J; TISSUE-Spleen;
Ma R.Z., Teuscher C.;
Submitted (MAY-1998) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        396; Conservative 220; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HSSP; P20701; 1LFA.
MGD; MGI:9606; Itgal.
InterPro; 1PR000413; Integrin_alpha.
InterPro; 1PR002035; WWF.A.
Pfam; PF01839; FG-GAP; 5.
Pfam; PP01837; integrin_A; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      33.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q9WTV4;
01-NOV-1999 (TrEMBLrel. 12,
01-NOV-1999 (TrEMBLrel. 12,
01-JUN-2002 (TrEMBLrel. 21,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; AF065902; AAD25885.1;
HSSP; P20701; 1LFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Integrin alpha L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                  913
                                                                                                                                                                                                                                                                                                                                                                                                           1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1090
                                                                                       782
                                                                                                                                                            842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24
                                                                                                                                                                                               855
                                                                                                                                                                                                                                 902
                                                                                                                                                                                                                                                                                                     196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   O9WTV4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q9WTV4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SON DEATH OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE PRINCE OF THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                     ò
                                                                                                                    g
                                                                                                                                                          ò
                                                                                                                                                                                       ద
                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                             엄
                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                              . <del>ද</del>
                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                     δ
                                                  g
```

658

587

816

827

774

875

```
883 WEDFVELNGTVHCENENSSLQEDNSAATHIPVLYPVNILTKEQENSTLYISFTPKGPKTQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           943 QVQHVYQV----RIQPSAYDHNMPT-LEALVGVPRPHSEDLITYTWSVQTDPLVTCHSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PGEEDNRGAVYLFHGTSGSG1SPSHSQR1AGSKLSPRLQYFGQSLSGGQDLTMDGLVDLT
                                                                                                                                                                               588 VGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAG-EVRVCLHVQKST
                                                                                                                                                                                                                         599 VGPEGRVVVLSSRPVVDVVTELSFSPEEIPVHEVECSYSAREEQKHGVKLKACFRIKPLT
                                                                                                                                                                                                                                                                       647 RDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNC
                                                                                                                                                                                                                                                                                                 PQ--FQGRLLANLSYTLQLDGHRMRSRGLFPDGSHELSGNTSITP-DKSCLDFHFHFFIC
                                                                                                                                                                                                                                                                                                                                                            707 IEDPVSPIVLRINFSLV---GTPLSAFGN-LRPVLAEDAQRLFTALFPFEKNCGNDNICQ
                                                                                                                                                                                                                                                                                                                                                                                        DDLSITFSFMSLDCLVVGGP-----REFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   817 STLQNQRSQRSWRLACESASSTEVSGAL-KSTSCSINHPIFPENSEVTFNITFDVDSKAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMLQ---PHSRMPVSCEEL--TEGSSLLTKTLKCNVSSPIFKAGQEVSLQVMFNTLLNSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    876 LGNKLLLKANVTSEN-NMPRTNKTEPQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               935 VMQHQYQVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQ----VTFSENLSS----TCHTK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     E-RLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1046 HNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLL
  EQTRGGQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cyprinus carpio (Common carp).
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Actinopterygii, Neopterygii, Teleostei, Ostariophysi, Cypriniformes,
Cyprinidae, Cyprinus.
NCBI_TaxID=7962;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.

TISSUB-Peritoneal exudate cells;

Kimura M., Nakao M., Miura C., Fujiki K., Yano T.;

Kimura M., Nakao M., Miura C., Fujiki K., Yano T.;

Molecular cloning of a leukocyte integrin from the common carp.";

Submitted (SEP-2000) to the EMBL/GenBank/DDBJ databases.

EMBL; AB04835; BAB39134.1;

EMBL; AB04835; BAB39134.1;

InterPro; IPR001969; Aspprotease site.

InterPro; IPR001963; Integrin_alpha.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (TrEMBLrel. 17, Created)
(TrEMBLrel. 17, Last sequence update)
(TrEMBLrel. 23, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1106 ALITAALYKLGFFKRQYKDMM-SEGGPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-JUN-2001
01-MAR-2003
                                                                                                                                                                                                                                                                                                                    629
                                                                                                                                                                                                                                                                                                                                                                                                                                                       763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               166
                                                                                                                                     542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              098TF1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         098TF1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                유
                                                                                                                                                                          ઠ
                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                  윱
                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60 IRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQ 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24 YNLDTRPTQSFLAQAGRHFGYQVLQIEDG-VVVGAPGE---GDNTGGLYHCRTSSEFCQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   : | : | | : | | : | | : | | : | | : | | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180 FRIHFTFKEF-QNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       199 CRIEFTFLDYVKQNKNPDYLLGSVQPMFLLTNTFRAINYVVAHVFKEESGARPDAIKVLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YQHIGLVAMFR--QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120 KFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VITDGEKFGDPLGYEDVIPEADREG------VIRYVIGVGDAFRSEKSRQELNTIASKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRDHVFQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TVGSYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FINEDTENAMTFOENA-RGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                               Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels 100;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1160;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; 1.
128127 MW; A33C531B139F1FAD CRC64;
                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Spleen;
Ma R.Z., Teuscher C.;
Submitted (MAY-1998) to the EMBL/GenBank/DDBJ databases.
EMBL; AF065901; AAD25884.1;
HSSP; P20701; 1LFA.
                                                                                                                                                          Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
25.9%; Score 1519; DB 11;
Best Local Similarity 33.6%; Pred. No. 2.5e-102;
Matches 1394; Conservative 219; Mismatches 459;
  LFLIFLALYKVGFFKRNLKEKMEADGGVPNGSP 1132
                                                                                                                Ą
                                                                                                                PRT; 1160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MGD; MGI:96606; Itgal.
InterPro; IPR000413; Integrin_alpha.
InterPro; IPR000413; WFA.
Pfan; PF01819; FG-GAP; 5.
Pfan; PF001857; integrin_A; 1.
PR.NYTS; PR01185; INTEGRINA.
PRINTS; PR01085; VWFADOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
SEQUENCE 1160 AA; 128127 MW; A330
                                                                                                                                                                                                                                                                                             Eukaryota, Metazoa, Chordata,
Mammalia, Eutheria, Rodentia,
NCBI_TaxID=10090;
                                                                                                                                                     01-MAY 2000 (TrEMBLrel. 13, C
01-MAY-2000 (TrEMBLrel. 13, L
01-JUN-2002 (TrEMBLrel. 21, L
Integrin alpha L.
ITGAL.
Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                :||||
259 IITDG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SMART; SM00191; Int_alpha;
SMART; SM00327; VWA; 1.
                                                                                                                PRELIMINARY,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     352
                                                                                                                Q9R200
                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
엽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
```

1045

942

934

1017

ò g ò 셤 ઠે q ò g ò g ò g ò

```
DIPFFGIQEE--FNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVR 1075
                                                                                                                                                                                                                                                                                 1056 KYSFYEFRKDNVFSISAELNYNTSLYNQTS------SELKYNPH------R 1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             113 NIRQOPOKFPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFS 172
                                                                                                                                                      939 PLNITYKVENSGRKDLPVSVTLTLPCOTPHVILTPHTFSMHEVHHSFISSYHQIIMCLLN 998
                                                876 LGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGV-STKYLNFTASENTSR 934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CK--RLORPGSESVRFFGMSAAVSSAALTS----CSPYFAHECDGNSYLNGVCYQFNS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 FNLDTENAMTFQENARG-FGQSVVQLQ-GSR--VVVGAPQEIVAANQRGSLYQCDYSTGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CEPIRLOVP----VEAVNMSLGLSLAATISPPQLLACGPTVHQTCSENTYVKGLCFLFGS
964 QTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQ-----C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 23.2%; Score 1363.5; DB 13; Length 1187; Best Local Similarity 31.5%; Pred. No. 7.2e-91; Matches 375; Conservative 209; Mismatches 451; Indels 157; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cyprinus carpio (Common carp).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Cyprinus.
NCBI_TaxIb=7962;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. TSUB-PREPAIRORS. TISSUB-PREPAIRORS A. TSUB-PREPAIRORS A. TSUB-PREPAIRORS A. TSUB-PREPAIRORS M.; FUJIKI K., NAKAO M.; "Molecular cloning of a leukocyte integrin from the common carp."; Submitted (SEP-2000) to the EMBL/GenBank/DDBJ databases. EMBL; AB048537; BAB39135.1; -- HSSP; P20701; 1LFA.
                                                                                                                                                                                                                                                                                                                                                                  1143
                                                                                                                                                                                                                                                                                                                                SQTETKVEPFEVPNPLPLIV-GSSVGGLLLLALITAALYKLGFFKRQYKD 1124
                                                                                                                                                                                                                                                                                                                                                      SQTEVKVE-FVVPPSLMLIVCTGAVGGFFFLIILFLLLKCGFFKRNRPD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1187 AA; 131778 MW; 85EDC7CA8B6B1C59 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (TrEMBLrel. 17, Created)
(TrEMBLrel. 17, Last sequence update)
(TrEMBLrel. 23, Last annotation update)
                                                                                                                     935 VMQHQYQVSNLGQRSLPISLVFLVPVR-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                        $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR001969; Aspprotease site InterPro; IPR000413; Integrin_alpha. InterPro; IPR002013; VWF A. Pfam; PF01819; FG-GAP; 5. Pfam; PF00357; integrin_A; 1. Pfam; PF00092; vwa; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROTEASE; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRINTS; PR01185; INTEGRINA.
PRINTS; PR00453; VWFADOMAIN.
SMART; SM00191; Int_alpha; 5.
SMART; SM00327; VWA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE; PS00141; ASP P)
PROSITE; PS50234; VWFA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1-JUN-2001
1-JUN-2001
1-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 57
                                                                                                                                                                                                                                                               1018
                                                                                                                                                                                                                                                                                                                                  1076
                                                                                                                                                                                                                                                                                                                                                                    1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q98TF0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                  셤
                                             õ
                                                                                   셤
                                                                                                                     δ
                                                                                                                                                  셤
                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         643 QKSTRDRLREGQIQSV--VTYDLALDSGRPHSRAVFNETKNSTR--RQTQVLGLTQTCET 698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      819 LQNQRSQRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDV---DSKAS 875
                                                                                                                                                                                                                                                                                                                                                    112
                                                                                                                                                                                                                                                                                                                                                                        NERQOPOKFPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFS 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                SL-QAVSNFTAAYQECSKREVNLVFLFDGSSSMKTVDFEMNKNFIKDIMKKLSNSSIKFA 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  :|:|:|||::||| ::|||
200 AVQFSTDVRTVFDFNDYQSGSAEEKLMKE-THWKSLINTHKAIDYILKNLLNSMLSGADS 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAFKILIVITDGEKFGDPLGYED--VIPEADREGVIRYVIGVGDAFRSEKSRQELNTIAS 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KPPRDHVPQVNNFEALKTIQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAAITSNGPL 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            523
                                                                                                                                                                                                                                                                                                                  88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SQ------PRIEGRLYYYSLSEQKYFQKTLNVSQSTIGRFAASVASLKDLNGDGLSDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TERTSS---TGSLEKKLNVSLNLNVDVVRGMSRGFFDQSSVSSRTLQQSVLLDSGSSCFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  173 LMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLN-ITNGARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AIGAPGEEDNRGAVYLFHGTSGSGISPSHS-QRIAGSKLSPRLQYFGQSLSGGQDLTMDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LKLQLPNCI EDPVSPIVLRLNFSLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NICODDLSITESFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDMN-DAYLGYAAAIILRNRVQSLVLGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QTRGGQVSVCPLPRGQRARWQCDAVLYGEQ-----GQPWGRFGAALTVLGDVNGDKLTDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHV
                                                                                                                                                                                                                                                                                                   CEPIRLOVP----VEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGS
                                                                                                                                                                                                                                                                                   1 FNLDTENAMTFQENARG-FGQSVVQLQ-GSR--VVVGAPQEIVAANQRGSLYQCDYSTGS
                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                          Ouery Match
Best Local Similarity 31.3%; Pred. No. 1.4e-94;
Matches 373; Conservative 227; Mismatches 446; Indels 144;
                                                                                                                                                               50234; VWFA; 1.
1196 AA; 132477 MW; 9369C807E7DCA53B CRC64;
                   Pfam; PF01839; FG-GAP; S.
Pfam; PF001839; Integrin_A; 1.
PRINTS; PR01185; INTEGRINA.
PRINTS; PR00189; INTEGRINA.
PRINTS; PR00191; Int. alpha; S.
SMART; SM00191; Int. alpha; S.
PROSITE; PS00141; ASP PROTEASE; 1.
PROSITE; PS50234; VWFA; 1.
InterPro; IPR002035; VWF_A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           599
                                                                                                                                                                                                                                                                                                                     32
                                                                                                                                                                                                                                                                                                                                                        57
                                                                                                                                                                                                                                                                                                                                                                                          83
                                                                                                                                                                                                                                                                                                                                                                                                                            113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    771
                                                                                                                                                                            SEQUENCE
```

43;

상 점

g ò g

े

a

õ

ò

g

셤

ò

g 8 S

ò

112 140

88

σ

```
Hypothetical protein. SEQUENCE 1086 AA;
                                                                                                  NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                               82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       291
                                                                                                                                                                                                                                                                                                                                                                                                                                                        104
 ద
                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                     ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1027 FRSSV--NLMAEAVLQNVKEYESKYSFY-EFRRDHVFNIS-AELNFNTSRYNQSTGLKYN 1082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ---SFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPG-QGA 1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -----SIAVCQRIQCDIPFFGIQEE 1027
                                                                                                                                                                                              466
                                                                     820 SKPDAIKPSRIR-----SSCGDRDSGAINRIICSINLPVYRSGIIIQFLGIFRVIKW 871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SL-QAVSNFTAAYQECSKREVNLVFLFDGSSSMKAVEFDMNKNFIKDVMKKLSNSSIKFA 199
                                                                                                                           406
                                                                                                                                                                   ::||| || |: || || || 310 VGSVGSNDWRGALYEVMGSGSKFRQTEITDPAVN----KDSYMGYSTVLGMRHGVSLLFSG 426
                                                                                                                                                                                                         522
                                                                                                                                                                                                                                                                              VAIGAPGEEDNRGAVYLFHGTSGSGISPSHS-QRIAGSKLSPRLQYFGQSLSGGQDLTMD 581
                                                                                                                                                                                                                                                                                        582 GLVDLTVGAQGHVLLLRSQ$VLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLH 641
                                                                                                                                                                                                                                                                                                                                         651
                                                                                                                                                                                                                                                                                                                                                            642 VQKSTRDRLREGQIQSV--ŸTYDLALDSGRPHSRAVFNETKNSTR--RQTQVLGLTQTCE 697
                                                                                                                                                                                                                                                                                                                                                                           698 TLKLQLPNCIEDPVSPIVLRLNFS----LVGTPLSAFGNLRPVLAEDAQRLFTALFPFEK 753
                                                                                                                                                                                                                                                                                                                                                                                                                         761
                                                                                                                                                                                                                                                                                                                                                                                                                                             754 NCGNDNICQDDLSITFSFM$LDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSY 813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                762 NC-NSNSCVADLKLNFSFTN-DTLVVENQAHFTVLVSLANPGDDSYNFSIVLHYPEGLSL 819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     814 RKVSTLONORSORSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDV--- 870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHGV-STKYLNFTAS 929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ENTSRVMOHOYOVSNLGORSLPISLVFLVPVRLNOTVIWDRPQVTFSENLSSTCHTKERL 989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DRGPKPLNIIYKVVNLGLKGLPVSVTLSLPCQ------TTHVTLTPHNFSMQ 974
                               LMOYSEEPRIHFTFKEFONNPNPRSLVKPITQLLGRTHTATGVRKVIRELLN-ITNGARK 231
                                                                                                                                                                                                                                                                                                                                 ----SEQYSQKTLQSTTGRFATSLASLKDLNGDGLSD
                                                                                                                                                                                                                                                                                                                                                                                                                 KPPRDHVFQVNNFEALKTIQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAAITSNGPL
                                                                                                                                                      LSTVGSYDWAGGVFLYT --- SKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLG
                                                                                                                                                                                              APRYOHIGLVAMFRONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHY
                                                                                                                                                                                                                                      467 YE-QTRG-GQVSVCPLPRGQRARWQCDAVLYGEQ--GQPWGRFGAALTVLGDVNGDKLTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKD 1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1083 PHRSQTEVKVEFVIPPSRMLIVCTGAVGGFFFLIILLLLLKCGFFKRNRPD
                                                                                                                                                                                                                                                          487 YQSQPRAEGRLYVYTL----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            990 PSHSDFLAELRKAPVVNC-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FNATLKGNL-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         929
                                                                                                                                                                                                                 427
                                                                                                                                                                                              407
                                                                                                                                                                                                                                                                              523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      930
                              ठ
                                                d
                                                                       ò
                                                                                     ద
                                                                                                             ò
                                                                                                                                g
                                                                                                                                                    ò
                                                                                                                                                                     엄
                                                                                                                                                                                            ò
                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                           엄
                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                     임
                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
```

37; 59 PIRLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQP 118 119 QKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSE 178 179 EFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILI 238 299 VNNFEALKTIQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDW 358 AGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVQSLVLGAPRYQHIGLV 416 417 AMFR - ONTGMWESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQ 474 533 NRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQG 592 -----ILFAAVOFST 117 VITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQ 298 26 YNLDVRGARSFSPPRAGRHFGYRVLQV-GNGVIVGAPGE---GNSTGSLYQCQSGTGHCL 81 SYKTEFDFSDYVKRKDPDALLKHVRHMLLLTNTFGAINYVATEVFREELGARPDATKVLI VSVCPLPRGQRARWQCDAV - LYGEQGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEED 1 FNLDTENAMIFQ - - ENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCE Q96HB1 PRELIMINARY; PRT; 1086 AA.
Q96HB1;
01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
Hypotherical protein.
Hypotherical protein.
Hypotherical protein.
Howo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. Query Match 23.0%; Score 1350.5; DB 4; Length 1086; Best Local Similarity 32.2%; Pred. No. 5.6e-90; Matches 376; Conservative 186; Mismatches 432; Indels 175; 1086 AA; 119223 MW; F6FF2546E8C632F9 CRC64; SEQUENCE FROM N.A.
TISSUB-Lymph;
Strausberg R.;
Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; BC008777; AAH08777.1; -.
InterPro; IPR000413; Integrin\_alpha.
InterPro; IPR002035; VWF\_A. PVTLR-GSNYTSKYLGMTLA--TDP------Pfam; PF01839; FG-GAP; 3.
Pfam; PF00357; integrin\_A; 1.
Pfam; PF00357; integrin\_A; 1.
PR.HYS; PR00195; INTEGRINA.
SMART; SM00191; Int\_alpha; 5.
SMART; SM00237; VWA; 1.
PROSITE; PS00242; INTEGRIN\_ALPHA; 1. ð

ò 셤 õ

g

g ò

ઠ

```
KTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGL 1102
                                                                                                                                                                                                                                                                               HIGLVAMFRQ--NTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQ 469
                                                                                                                                                                          EEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVG 589
234 FKILIVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPR 293
                                                   DHVPQVNNFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTV 353
                                                                                                                              GAKDWAGGFLDLKADLKSSTFVGNEPLTVESRAGYLGYTVTRLPSRGTMSLLATGAPKYQ 236
                                                                                                                                                                                                                                                                                                                                                                                          644 -KPHSHVPVGCEELPEEAVVHS-RALSCNVSSPIFGEDSMVDIQVMFNTLQKGSWGDFIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GSYDWAGGVF-LYTSKEKSTFINMTRVDSDMNDAYLGYAAA-IILRNRVOSLVLGAPRYO
                                                                                                                                                                                                              470 TRGGOVSVCPLPRGORARWOCDAVLYGEQGOPWGRFGAALTVLGDVNGDKLTDVAIGAPG
                                                                                                                                                                                                                                                                                                                      AQCHVLLLRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAG-EVRVCLHVQK--ST
                                                                                                                                                                                                                                                                                                                                       647 RDRLREGOIQSVVTYDLALDSGRPHSRAVFNETKNSTRROTOVLGLTQTCETLKLQLPNC
                                                                                                                                                                                                                                                                                                                                                                                                                           707 IEDPVSPIVLRLNFSL - - - VGTPLS - - AFGNLRPVLAEDAORLFTALFPFEKNCGNDNIC
                                                                                                                                                                                                                                                                                                                                                                                                                                              QDDLS1TFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          586 EADLKLAFSDMRSKILRLTPSASLSVRLTLRNTAEDAYWVQVTLSFPQGLSFRKVEIL--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QRSQRSWRLACESASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LKANVTS-----ENNMPRTNKTEFQLELPVKYAVYMVVTSHGVSTKYLNFTASENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RVMOHOYOV----SNLGQRSLPISLVFLVPVRLNOTVI----ND----RPQVTFS-ENLSST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          814 SDEAE------SCSFGT--EFRCPIDF---RQEILVQVNGMVELRGTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LLLALITAALYKLGFFKR 1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (TrEMBLrel. 08, (TrEMBLrel. 08, (TrEMBLrel. 23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ||| || || ||||:||||||
LLLFLIFIALYKVGFFKR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-NOV-1998
01-NOV-1998
01-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     606
                           64
                                                      294
                                                                                                                                                                                                                                                                                             354
                                                                                                                                                                                                                                                                                                                         290
                                                                              117
                                                                                                       354
                                                                                                                                  177
                                                                                                                                                            412
                                                                                                                                                                                                                                                                    530
                                                                                                                                                                                                                                                                                                                                                                                                     471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    088340
088340;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
088340
ID 08834
AC 08834
DT 01-NO
DT 01-NO
DT 01-MA
                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                               g
                                                                                                                                                            ò
                                                                                                                                                                               셤
                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                           음
                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                            8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            કે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                    셤
                                                      δ
                                                                      셤
                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                 1108
                                                                                                                                                                                                                                                                                                                                                                           SHSD--FLAELRKAPVVNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTSHNH 1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                FSLCSSLSISFNSSKHFHLYGSNASL-AQVVMKVDVVYEKQMLYLYVLSGIGGLLLLLI 1023
                                                                                                                                                                                                                 880
                                                                                                                                                                                                                                                                     936
                                                                                                                                                                                                                                                                                                                          990
                                                                                                                                                                                                                                           808
                                                                                                                                                                                                                                                                                       ELHANVTCHNEDSDLLEDNSATTI ---IPILYPINILIQDQEDSTLYVSFTPKGPKIHQV 865
                                                                                639
                                                                                                          762
                                                                                                                                   694
                                                                                                                                                            822
                                                                                                                                                                                      751
                                                       711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          63
                                                                                                                                                                                                                                                                                                                                         MQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KPHSQIPVSCEELPEESRLLSRAL---SCNVSSPIFKAGHSVALQMMFNTLVNSSWGDSV
                                                                                                          SPIVLRINFSL---VGTPLSAFGN-----LRPVLAEDAQRLFTALFPFEKNCGNDNICQ
                                                                                                                               SPINVSLNFSLWEEEGTPROGRAGKDIPPILRPSLHSETWEI-----PFEKNCGEDKKCE
                                                                                                                                                             DDLSITFSFMSLDCLVVGGPREFNVTVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQ
                                                                                                                                                                                                                 RSQRSWRLACES -- ASSTEVSGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKL
                                                                                                                                                                                                                                                                     LLKANVTSENN----MPRINKTEFQLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVM
                                                                                                                                                                                                                                                                                                                          OHOYOY ---SNLGORSLP-ISLVFLVPVRLNQTVIWDRPQVTFSENLSSTCHTK--ERLP
                                                                                                                                                                                                                                                                                                                                                                                                      1049 LLIVSTARILFNDSVFTLUPGQGAFVRSQTRTKVEPFEVPNPLPLIVGSSVGGLLLLALI
  HULLLRSOPVLRVKAIMEFNPREVARNVFECNDOVV-KGKEAGEVRVCLHVOKSTRDRLR
                                                       EGQIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPV
                   Lymphocyte function-associated antigen 1 (Fragment).
Bos taurus (Bovine).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Cetartiodactyla, Ruminantia, Pecora, Bovoidea,
Bovidae, Bovinae, Bos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Thumbikat P., Kannan M.S., Maheswaran S.K.; Sequence of the alpha subuhit of bovine lymphocyte function-associated antigen 1.", Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21.6%; Score 1270; DB 6; Length 927; 34.7%; Pred. No. 3.5e-84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       339; Conservative 167; Mismatches 386; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    927 AA; 102523 MW; 02E2CF09917081EC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1024 FIVLYKVGFFKRNLKEKMEAGRGVPNGIP 1052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAALYKLGFFKRQYKDMMSEG-GPPGAEP 1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 927
                                                                                                                                                                                                                                                                                                                                                                                                        924 DAAEPCLPGALFRCPVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                      640
                                                                                                                                                                                                                                                                                                                                                    998
                                                                                                                                                                                                                                                                                                                                                                                991
                                                                                   581
                                                                                                          712
                                                                                                                                                               763
                                                                                                                                                                                                                  823
                                                                                                                                                                                                                                            752
                                                                                                                                                                                                                                                                       881
                                                                                                                                                                                                                                                                                                809
                                                                                                                                                                                                                                                                                                                           937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                              523
                                                        652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QBHZV0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OSHZV0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Loga
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                  g
                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                            임
                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
```

585

646 470 706 525 761 643 881 701

821

1042

982 813

754

850

```
986 KERLPSHSDFLAELRKAPVVNCSJAVCQRIQCDIPFFGIQEEFNATLKGNLSFDWYIKTS 1045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1026 SQEPACGSDPVQHVKEWHSVVCAI-------TSNKENVTVAAEISVG 1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HNHLLIVSTA-----EILFNDSVFTLLPGQGAFVRSQTBTKVEPF----EVPNPLPLIV 1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                972 SPSDHKEFFFNVHGENLFGAVFQLQICVPIKLQDF-----QIVRVKNLTKTQDHTECTQ 1025
DSKASLGNKLLLKANVTSENNMPRTNKTEFQLELPVKYAVYMVVTSHCVSTKYLNFTASE 930
                                                                                                                                                                                                                                                                                                                                                                                                        NTSRVMQHQYQVSNLGQRSLPISLVFLVPVRLNQTVIWDRPQVTPSENLSST----CHT 985
                                                                                                                                                                                                                                                                                                       LQFKKI-----QKPVSPDVQCDDPKPV---ASVLVMNCKIGHPIL-KRSSVNVSVTWQL
                                                                                                                                PLNFTVDVDV-------TKQRQRLQCEDSSGCQSCLRKWNGGSFLCEHFWLI
                                                                                                                                                                                LRSQPVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKS----TRDRLREG
                                                                                                                                                                                                                          PEKNCGNDNICQDDLSITFSFMSLDCLVVGGPREFNVTVTVRNDGEDSYRTQVTFFFPLD
                                                                                                                                                                                                                                                                                     LSYRKVSTLQNQRSQRSWRLACESASSTEVSGALKSTSCSINHPIPPENSEVTFNITFDV
                                                                                                                                                                                                                                                                                                                                                                          EESVFPNRTADITVTISNSNEKSLARETR ---SLOFRHAFIAVLSR -- PSVMYMN --TSO
                                                                                                                                                                 ETLKLOLPNCIEDPVSPIVLRLNFSLVGTPLSAFGNLR----PVLAEDAQRLFTALF--P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          subunits:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QIQSVVTYDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002035; VWF A.
Pfam; PF01339; FC-GAP; 4.
Pfam; PF00357; integrin_A; 1.
Pfam; PF000357; vwa; 1.
PRINTS; PR01185; INTERINA.
PRINTS; PR00453; VWFADOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOV-1998 (TrEMBLrel. 08, Cr
01-NOV-1998 (TrEMBLrel. 08, La
01-MAR-2003 (TrEMBLrel. 23, La
Integrin alpha E2 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Rattus norvegicus (Rat)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1120
                 607
                                              597
                                                                          999
                                                                                                      654
                                                                                                                                   716
                                                                                                                                                                 697
                                                                                                                                                                                              761
                                                                                                                                                                                                                          751
                                                                                                                                                                                                                                                       810
                                                                                                                                                                                                                                                                                      811
                                                                                                                                                                                                                                                                                                                 869
                                                                                                                                                                                                                                                                                                                                             871
                                                                                                                                                                                                                                                                                                                                                                            919
                                                                                                                                                                                                                                                                                                                                                                                                        931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 14
088341
                                                                                                                             셤
                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                       셤
                                                                                              ઠે
                                                                                                                                                                 ઠ
                                                                                                                                                                                      g
                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                      43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        : |:| | : | | : | : | : | : | : | : | 430 NGRGCFLNQTAKEDSRTVQYSYLGYSLAVLHKAHGISYVAGAPRHKLRGAVFELRKEDR- 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STGSCEPIRLQVPVEAVNM$LGLSLAATT--SPPQLLAC-GPTVHQTCSENTYVKGLCFL 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         190 QNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVITDGEKFGDP 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LGYEDVI PEADREGVIRYV IGVGDAFRSEKSRQELNTIASKPPRDHVFQVNNFEALKTIQ 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        368 KEKSTFINMT-RVDS-DMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGM 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WESNA---NVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPLPR 482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -QDASFSLAHTLSGHPGLTNSRFGFAMAAVGDINQDKFTDVAIGAPLEGFGAGDGASYGS 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SI-SPDEIACO-PVEHICMPKGRYQGVTLVGNHNGVLVCIQVQARKPRSLNSELTGACSL 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ----- PQE 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  133 LTPNLDLÓAQAYFSDLEGFLDPGAHVDSGDYCRSKGGSTGEEKKSARRRRTVEEEDEEED 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                132 DSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQL--KKSKTLFSLMQYSEEFRIHFTFKEF 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               310 NQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGP-LLSTVGSYDWAGGVFLY-TS 367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           373 SKLOQRIVHMEGT---VGDALQYQLAQTGFSAQILDKGQVLLGTVGAFNWSGGALLYSTQ 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VYLFHGTSGSGISPSHSQRİAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLL 596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAP-----GEEDNRGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FNLDTENA - - MTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGS - - - - - LYQCDY
                              Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 29.1%; Pred. No. 3.6e-76;
Matches 359; Conservative 211; Mismatches 458; Indels 205; Gaps
                                                                                   SEQUENCE FROM N.A.

MEDLINE=98056820; PubMed=9394838;
Bronan M., ReeB D.JG.;
Bronan M., ReeB D.JG.st
insquence analysis of rat integrin alpha E1 and alpha E2 subtissue expression reveals phenotypic similarities between intraspithelial lymphocytes and dendritic cells in lymph.";
Eur. J. Immunol. 27:3070-3079(1997).

EMBL; ARC23662.1;
HSSP; P11215; 1BHQ.
                                                                                                                                                                                                                                                                                                                                                           PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS50234; VWFA; 1. SEQUENCE 1167 AA; 128970 MW; D88A2C38ACDC2AAE CRC64;
                                                                                                                                                                                                                     InterPro; IPR000413; Integrin_alpha.
InterPro; IPR002015; VWF_A.
Pfam; PF010357; FG-GAP; 4.
Pfam; PF00357; integrin_A; 1.
Pfam; PF00052; vwa; 1.
PRINTS; PR01185; INTEGRINA.
PRINTS; PR00185; VWFADOMAIN.
SMART; SM00191; Int_alpha; 4.
               Rattus norvegicus (Rat).
Eukaryota, Metazoa, Chordata,
Mammalia, Eutheria, Rodentia,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      110 FGSNLRQQPQKFPEALRG-
   Integrin alpha El
                                                          NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              483
 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

```
Integrin.
                                                                                                                                                                                                                                                                                                                                                                                                            Sobue K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                    1067
                                                                                                                                                                                                                            RESULT 15
042094
                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                     셤
                                  g
                                                       δ
                                                                       g
                                                                                              ઠે
                                                                                                                윱
                                                                                                                                     ઠ
                                                                                                                                                                          ઠે
                 δ
                                                                                     37;
                                                                                                                                              127
                                                                                                                                                                                                                                                278
                                                                                                                                                                                                                                                                                       338
                                                                                                                                                                                                                                                                                                                            395
                                                                                                                                                                                                                                                                                                                                                 390
                                                                                                                                                                                                                                                                                                                                                                    454
                                                                                                                                                                                                                                                                                                                                                                                                          514
                                                                                                                                                                                                                                                                                                                                                                                                                                210
                                                                                                                                                                                                                                                                                                                                                                                                                                          564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               840 VSGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTE 899
                                                                                                                                                                  99 LVRNHNGVLVCIQVQSRKPRSLNSELTGACSLLTPNLDLQAQAYFSDLEGVLDLGASVNS 158
                                                                                                                                                                                      ----CPQED-----SDIAFLIDGSGSIIPHDFRRMKEFV 157
                                                                                                                                                                                                 STVMEQL--KKSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGV 215
                                                                                                                                                                                                                                                                                                           276 RSEKSROELNTIASKPPRDHVFOVNNFEALKTIQNOLREKIFAIEGTOTGSSSSFEHEMS 335
                                                                                                                                                                                                                                                                                                                                                                                       AAAIILRNRVQSLVLGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDV 450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LQYFGQSLSGGQDLTMDGUVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVARNVFECN 624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ---MAFKDKMDVELCFKVDSSAVPSEPGLRGMSLNFTVDVDV--------TKQ 727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -----TQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNFS 721
                                                                                                                            98
                                                                                                                                                                                                                                                                                                                                                                                                     DSNGSTDLVLIGAPHYYEQTRGCQVSVCPLPRGQRARWQCDAVLYGEQGQPWGRFGAALT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ----GEEDNRGAVYLFHGTSGSGISPSHSQRIAGSKLSPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOVVKGKEAGEVRVCLHVQKS---TRDRLREGQIQSVVTYDLALDSGRPHSRAVFNETKN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              728 KORLOCADRSCCOSCLMKWSGGSSLCEHFGLISTEEEL-----CEDDCFSNITIKVSYE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              782 F-QTSEERRNHPNPIL--DHYKEPSAIFQLPYEKDCKNKVFCIAEIQLTTAISQQD-LVV
                                                                                                                                                                                                                                                                                722 LVGTPLSAFGNLRPVLAEDAQRLFTALF--PFEKNCGNDNICQDDLSITFSFMSLDCLVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGPREFNVTVTVRNDGED$YRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | :| : ::: | ||||| | : :| :| :| :| :| | | GITKEVTMNISLINGEDSYMTNMALNYPRNLQFKKI-----QKPLSPDIQCDDPKPV-
                                                                                                                             -----ATSIIPDEIGCQPVEHILMPKGRYQGVT
                                                                                                                                               ------QTCSENTYVKGLCFLFGSNLRQQPQKFPEALRG------
                                                                                                                                                                                                                                                STMMRNFYEKCFECNFALVOYGGVIQTEFDLLDSRDINASLAKVOSIVOVKEVTKTASAM
                                                                                                                                                                                                                                                                   216 RKVIRELLNITNGARKNAFKILIVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAF
                                                                                      Gaps
                                                                 Query Match
19.0%; Score 1119; DB 11; Length 1167;
Best Local Similarity 27.8%; Pred. No. 6.7e-73;
Matches 335; Conservative 204; Mismatches 423; Indels 244;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ::
                                                                                                         47 LYQCDYSTGSCEPIRLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVH
                                               1167 AA; 128593 MW; E3FED7E18B5CBBC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ::
                 PROSITE; PS00242; INTEGRIN ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
                                                                                                                             67 LYQC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VLGDVNGDKLTDVAIGAP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRRQ-----
SMART; SM00191; Int_alpha;
SMART; SM00327; VWA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
                                     NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       511
                                                                                                                                                                                                                                                219
                                                                                                                                                95
                                                                                                                                                                                                                              158
                                                                                                                                                                                                                                                                                                                              339
                                                                                                                                                                                                                                                                                                                                                 336
                                                                                                                                                                                                                                                                                                                                                                     396
                                                                                                                                                                                                                                                                                                                                                                                        391
                                                                                                                                                                                                                                                                                                                                                                                                            455
                                                                                                                                                                                                                                                                                                                                                                                                                                451
                                                                                                                                                                                                                                                                                                                                                                                                                                                   515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                       128
                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                             8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  상 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
STREET
                                                                                                         ò
                                                                                                                           g
                                                                                                                                               ò
                                                                                                                                                               g
                                                                                                                                                                                      ઠે
                                                                                                                                                                                                       g
                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                              ď
                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
46;
                                                                                                                                                                  960 VRLNQTVIWDRPQVTFSENLSST-CHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCD 1018
                                                                                                                                                                                                    1019 IPFFGIOEEFNATL-----KGNLSFDWYIKTSHNHLLI--VSTAEIL----FNDSVFTL 1066
                                                                                                                                                                                                                                                                                                                     1040 -----EEWHSVICAITSNKENVTVAAEISMGHTKQLLRDISELQILGEISFNKSLYEG 1092
                                                                                                                                                                                                                                                                                                                                                                                                                     2 NLDTENAMTFQENARG-FGQSVVQL---OGSRVVVGAPQEIVAANORGSLYQCDYSTGSC 57
-- ASVLVMNCKIGHPIL-KRSSVNVSVTWQLEESIFPNRTADITVTISNSNEKSLARETH 947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-JAN-1998 (TrEMBLrel. 05, Created)
01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
ALPHA1 integrin.
Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŏ
                                                                                                           ---SLOFRHAFIAVLSR--PSVMYMN--TSOSSSDHKEFFRNVHGENHFGAVFOLOICVP
                                                         900 FQLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                           LPGQGAFVRSQTETKVEPF----EVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels 144; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Smooth muscle cell phenotype-dependent transcriptional regulation the alphal integrin gene.";
J. Biol. Chem. 272.26643-26651(1997).
BMBL, AB000470; BAA23160.1;
BMBL, AB000471; BAA23160.1;
HSSP; P17301; 1AOX.
InterPro; IPR0004213; Integrin_alpha.
InterPro; IPR0002035; VWF A.
Pfam; PF01839; FG-GAP; 5.
Pfam; PF01839; integrin_A; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE=Gizzard;
MEDLINE=97476270; PubMed=9334246;
Obata H., Hayashi K., Nishida W., Momiyama T., Uchida A., Ochi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1171;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1171 AA; 130228 MW; BS05A4D65F09736E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 17.9%; Score 1051; DB 13; Best Local Similarity 28.0%; Pred. No. 6.7e-68; Matches 339; Conservative 216; Mismatches 513;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT; 1171 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS00242; INTEGRIN_ALPHA; 1.
PROSITE; PS50234; VWFA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SMART; SM00191; Int_alpha; 4.
SMART; SM00327; VWA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pfam, PF00092, vwa, 1.
PRINTS, PR01185, INTEGRINA.
PRINTS, PR00453, VWFADOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1123 KDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1147 KQLNLE 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=9031;
```

8 6 8 6 8 6 8 6 8

108 F	FLFGSNLRQOPQKFPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEPVSTVMEQLK 165
138 \$	NVSSTFETVKAVAP-SVQEC-KTQLDIVIVLDGSNSIYPWESVTAFLNSLLRNMDIG 193
166 K	KSKTLFSLMQYSEEFRIHFTFKEFQNNPNPRSLVKPITQLLG-RTHTATGVRKVIRELLN 224
194 P	POGTQVGIVQYGQTVVHEFYLNTYSTTEEVMDAALRİRQRGGTQİMİALGİDTAREEAFT 253
225 I 254 E	ITNGARKNAFKILIVITDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEK 279 
	FVEEIKSIASKPTEKHFFNVSDELALVTIVEALGERIFALEATTDQQAASFEMEMSQAGF 372
340 \$	SAAITSNGPLLSTVGSYDWAGGVFLYTSKEKSTFINMTRVDSDWNDAYLGYAAAI 394    : :            : :           SAHYSQDWVMLGAVGAYDWNGTVVWVKDSDISIPSNDTFRDRHSEKIEFLAAYLGYTVNS 432
395 I	ILRNRVQSLVIGAPRYQHIGLVAMFRQNTGMWESNANVKGTQIGAYFGASLCSVDVDSNG 454 
455 8	STDLVLICAPHYY EQTRGGOVSVCPLPRGORARWOCDAVLYGEOG 499
493 F	
500 Q : 553 E	OPWG-RFGAALTVLGDVNGDKLTDVALGAPGEEDNRGAVYLFHGTSGSGISPSHSQRIAG 558 
559 S 612 G	SKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQPVLRVKAIMEFNPREVAR 618
619 N     670 N	NVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIOSVVTYDLALDSGRPHSRAVF 676   :
677 N 725 T	NETRNSTRROTQVLGLTQTGETLKLQLPNCIEDPVSPIVLRLNFSLVGTPLSAFG 731
	NLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVGGPREFN 786
787 V : 832 I	VTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEVSGALKS 846 :::::  ::      : : : : : :     : : : :
847 T 875 T	TSCSINHPIFPENSEVTFN TFDVDSKASLGNKLLLKANVTSENNMPRTNKTEFQL 902 
903 E	ELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLP-1 952          ::
953 8 : E	SIVFLVPVRLNQTVINDR PQVTFSENLSSTCHTKERLPSHSDFLAELRKAP 1003 :
1004 - 10,49 D	VUNCSIAVCQRIQCDIPFFGIQEEFNATLKGNLSFDNYIKTSHNHLLIVSTAEIL 1058 ::
1059 F	FNDSVFTLLPGQGAFVRSQTETKVEPFEVPNPLPLIVGSSVGGLLLALITAALYKLG 1116
	_

Search completed: November 25, 2003, 14:20:40 Job time : 38.1068 secs

```
Human beta 2 integ
Human alpha-d. Ho
Human alpha-d. Ho
Human alphad prote
Human alphad prote
Human alpha of clon
Human beta 2 integr
Human alpha deri
Human alpha deri
Human alpha deri
Human alpha deri
Human alpha deri
Human alpha deri
Human Beta 2 integri
Rat alpha-d subuni
Rat alpha-d subuni
Rat alpha-d subuni
Rat alpha-d protei
Rat alpha-d protei
Rat alpha-d protei
Rat alpha-d protei
Rat alpha-d protei
Rat alpha-d protei
Rat alpha-d protei
Rat alpha-d protei
Rat alpha-d protei
Rat alpha-d protei
Rat alpha-d protei
Rat alpha-d protei
Rat alpha-d protei
Rat alpha-d protei
Mouse alpha-d protei
Mouse alpha-d alpore
Mouse alpha-d alpore
Mouse alpha-d alpore
Mouse alpha-d alpore
Mouse alpha-d alpore
Mouse alpha-d alpore
Mouse alpha-d alpore
Mouse alpha-d alpore
Mouse alpha-d alpore
Mouse alpha-d alpore
Mouse alpha-d alpore
Mouse alpha-d alpore
Mouse alpha-d alpore
Mouse alpha-d alpore
Mouse alpha-d alpore
Rat beta-integri
Rat beta-integri
Rat beta-integri
Rat beta-integri
Rat alpha-d alpore
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Beta-integrin alpha-d subunit; human; modulator; treatment; psoriasis; type-I diabetes; atherosclerosis; multiple sclerosis; asthma; lung inflammation; acute respiratory distress syndrome; CD11b subunit; rheumatoid arthritis.
Human Be
Protein
Human be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human Beta-integrin CD11b subunit protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ALIGNMENTS
ABG61470
ABU07406
AAR78166
AAW23049
AAW72825
                                                                                                                                                                            AAB07376
ABG61485
AAR78169
AAW23062
AAW72824
                                                                                                                                                                                                                                         AAW60004
AAB07374
ABG61483
AAW65104
                                                                                                                                                                                                                                                                                                                                                                                                  AAR78168
AAW23059
AAW72834
                                                              AAW65089
AAW57491
                                                                                                                           AAW23064
AAW72837
                                                                                                                                                    AAW65106
AAW73343
                                                                                                                                                                                                                                                                                                                      AAW72836
AAW65103
                                                                                                                                                                                                                                                                                                                                               AAW60003
AAW73347
                                                                                                                                                                                                                                                                                                                                                                         AAB07373
ABG61482
                                                                                       AAW73342
                                                                                                  AAB07359
                                                                                                                ABG61468
                                                                                                                                                                                                                                                                                              AAW73345
                                                                                                                                                                                                                                                                                                            AAW23061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW65090 standard; Protein; 1153 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gallatin WM, Van DER VIEREN M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95US-0485618.
93US-0173497.
94US-0286889.
94US-0362652.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    95US-0485618
  (first entry)
 CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-JUN-1995;
23-DEC-1993;
05-AUG-1994;
21-DEC-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (ICOS-) ICOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US5728533-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-MAR-1998
AAW65090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW65090
 Human Beta-integri
Human CD11b protei
Human Betaz integri
Human integrin 1 a
Integrin Mac-1 alp
Alpha subunit of M
p150.95 alpha subu
Human Beta-integri
Human CD11c protei
                                                                                      ; Search time 36.2978 Seconds (without alignments) 4971.979 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                   A_Geneseq_19Jun00;:-

[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1980.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1981.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1981.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1981.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1981.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1981.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1981.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1981.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1981.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1980.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1980.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1980.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1991.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1991.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1991.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1991.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1991.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1991.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1992.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1992.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1999.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1999.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1999.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1999.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1999.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1999.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1999.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1999.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_embl/AA1999.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_genebl/AA2001.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_genebl/AA2002.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_genebl/AA2002.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_genebl/AA2002.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_genebl/AA2002.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_genebl/AA2002.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_genebl/AA2002.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_genebl/AA2003.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_genebl/AA2003.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_genebl/AA2003.DAT:-
[SIDSI]Gcgdata|geneseq_geneseq_geneseq_geneseq_geneseq_geneseq_genebl/AA2003.DAT:-
                                                                                                                                      US-09-902-481B-6
5875
1 PNLDTENAMTFQENARGPGQ.....FKRQYKDWMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Description
             GenCore version 5.1.6
(c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                               1107863 seqs, 158726573 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUMMARIES
                                                                                      14:08:29
                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW65090
AAB07360
ABG61469
AAU80252
AAR04128
AAR04136
AAR04136
AAR04136
                                                               sw model
                                                                                                                                                                                         BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ü
                                                               - protein search, using
                                                                                       2003,
                                                                                                                                                                                                                                                                                Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1153
1153
1153
1153
1153
1163
1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                       November 25,
                         Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query
Match 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
                                                                                                                                                    Perfect score:
                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OM protein
                                                                                                                                                                                                                               Searched:
                                                                                                                                                                   Sequence:
                                                                                                                                                                                                                                                                                                                                                                         Database
                                                                                       Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                H 2 F 4 S 9 C 8 6
```

```
1020
                                                                                                                                                                                                                                                                                                                           1080
                                                                                                                                                                                                                                                                                                                                                                                         960
                736
                                                                              196
                                                                                                              840
                                                                                                                                            856
                                                                                                                                                                            900
                                                                                                                                                                                                          916
                                                                                                                                                                                                                                                                       976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human, macrophage infiltration inhibition, alpha_d integrin; leukocyte integrin; Leu-CAM; leukointegrin; immune response; inflammation; leukocyte adhesion deficiency; LAD; Type I diabetes; atherosclerosis; multiple sclreosis; asthma; psoriasis; beta2 integrin; lung inflammation; acute respiratory distress syndrome; Crohn's disease; rheumatoid arthritis; central nervous system injury; CDllb.
                                                                                                                                                                                                                                                                                                                                                                                                                                      1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Integrins are a class of membrane-associated molecules that participate
                                                                                                                                                                                                                                                                                                                                                                                                                                                       FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                   SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                              GPREFNYTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                917 QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVPLVPV
                                                                                                                                                                                                                                                                                                          961 RLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                 SCALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                            QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          monoclonal antibodies to inhibit inflammation at central nervous
                                                                                                                                                                                                                                                                                                                                                                                                                                        KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          integrin d r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5; Fig 1; 270pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard, Protein; 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human CD11b protein sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99US-0350259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Use of novel anti-alpha macrophage infiltration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Van Der
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2000-387751/33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             system injury sites
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200029446-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (ICOS-) ICOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gallatin MW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              08-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                           1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1097
                                                                                                                                                                                                                                                                                                                                                                                                                                           1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAB07360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAB07360;
                                                                                                                 781
                                                                                                                                                 197
                                                                                                                                                                                841
                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 2
AAB07360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                         ద
                                                                                                                 ઠે
                                                                                                                                              a
                                                                                                                                                                              ઠે
                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                 This sequence represents a human beta-integrin CD11b subunit which is used to describe a method for identifying compounds that modulate the interaction of the beta-integrin alpha-d subunit with a binding partner of alpha-d which involves contacting an alpha-d polypeptide with an alpha-d binding partner, one of which is immobilised and the other of which is labelled, in the presence of a test compound, and determining it the compound affects binding between the alpha-d polypeptide and alpha-d binding partner, where the alpha-d polypeptide is alpha-d or its fragment comprising the cytoplasmic, transmembrane or extracellular domain of alpha-d. Compounds that modulate alpha-d binding could be used to treat diseases such as type-I diabetes, atherosclerosis, multiple sclerosis, syndrome and rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NFEALKTIQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 YDLALDSGRPHSRAVFNÄTKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ONTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RIHFTFKEFONNPNPRSLVKPITOLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILVVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                       Score 5868; DB 19; Length 1153;
Pred. No. 0;
3; Mismatches 1; Indels 0;
                                 Screening assay for modulators of integrin binding - using immobilised or labelled alpha-d polypeptide, useful for, etreating type-I diabetes
                                                                                                  English
                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 99.6%;
Matches 1133; Conservative
                                                                                                    Example 5; Fig 1A-D; 106pp;
                                                                                                                                                                                                                                                                                                                                                                 1153 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   437
                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
```

g

6 8 6 8 6

ઠે

셤

6 6 6 6 6

d

ò

6 6 6 6 6

```
ABG6146
                                                                                                                                                                                                                                                                                                                                         RESULT
                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                         8
                                                                                   ठे
                                                                                                     셤
                                                                                                                                  ઠે
                                                                                                                                                       용
                                                                                                                                                                                δ
                                                                                                                                                                                                  용
                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                    名
                                                                                                                                                                                                                                                                             ò
in cellular adhesion. Integrins are made up of an alpha subunit and a beta subunit. One class of human integrins are restricted to expression in white blood cells and have a common beta2 subunit: the leukocyte integrins, Leu-CAMS, leukointegrins or beta2 integrins Beta2 integrins can important role in immune and inflammatory responses. The present protein sequence is the human integrin alpha subunit CD11b. This protein sequence was used in an alignment to identify a novel beta2 integrin alpha subunit: alpha d (AAA660014 and AAB07359). The present sequence has approximately 60% identity to the protein sequence of alpha d. The Alpha d subunit alpha d function e.g. Type I diabetes, atherosclerosis, and tipe society distress syndrome, rheumatoid arthritis and leukocyte respiratory distress syndrome, rheumatoid arthritis and leukocyte adhesion deficiency (LAD). In addition, anti-alpha d monoclonal antibodies can also be used in the inhibition of macrophage infiltration at the site of a central nervous system injury. The monoclonal antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                              136
                                                                                                                                                                                                                                                                                                                                                                                                                                                          256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              616
                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                               9/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                     RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                     TDGEKFGDPLGYEDVI PEABREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                         FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                      FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                    FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                    RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                 RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILVVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                           Length 1153;
                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                 1;
                                                                                                                                                                                                                                          DB 21;
                                                                                                                                                                                                                                          Score 5868; DB
Pred. No. 0;
3; Mismatches
                                                                                                                                                                                                                                          99.98;
                                                                                                                                                                                                                                                                 Matches 1133; Conservative
                                                                                                                                                                                                                    1153 AA;
                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               557
                                                                                                                                                                                                                                                                                                                                                                                                                                                          197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 497
                                                                                                                                                                                                                    Seguence
                                                                                                                                                                                                                                                                                                                11
                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                              17
                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                            137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                           Query Match
    g
                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
```

```
RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         977 RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         916
                                                                                                                                                                                                                                                                                                                                QLELPVKYAVYMVTSHGVSTKYLNFTASBNTSRVMQHQYQVSNLGQRSLPISLVPLVPV 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LAD; leukocyte adhesion deficiency; inflammatory response; diabetes; multiple scleroals, archititis; graft atheroscleroals; mauroprotective; inflammatory bowel disease; Crohn's disease; ulcerative colitis; immune complex alveolitis; leukaemia; ICAM-R; VCAM-1; anti-inflammatory; infracellular cell adhesion molecule; vascular cell adhesion molecule; locomotor recovery; locomotor damage; locomotor impairment; autonomic dysfunction; sensory dysfunction; spinal cord injury.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to promoting locomotor recovery, inhibiting locomotor damage, limiting locomotor impairment, or limiting autonomic and sensory dysfunction following spinal cord injury by administering a
SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                      FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
                                                                                          GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                         GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                             SCALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Use of an anti-alpha-d monoclonal antibodies for promoting locomotor recovery, inhibiting locomotor damage, limiting locomotor impairment, or limiting autonomic and sensory dysfunction following spinal cord
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3eta2 integrin; alphaD subunit; CD11c subunit; CD11b subunit;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human Beta2 integrin alphaCD11b subunit.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 5; Page 191-194; 270pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ż
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABG61469 standard; Protein; 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-OCT-2001; 2001WO-US32059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13-OCT-2000; 2000US-0688307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-463260/49.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200230980-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (ICOS-) ICOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ballatin WM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-APR-2002.
                                                                                                                                                                                                                                                                                                                                                                                            917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABG61469;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1097
                                                                                       781
                                                                                                                                                     797
                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                        857
                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                       196
```

900 916 960

1036 1020

916

ò g ò g ò g ઠે q ò g ò

```
FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                          KVEPPEVPNPLPLIVGSSVGGLLLLALITAALYKLGPFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QLELPVKYAVYWVVTSHGVSTKYLNFTASENTSRVWQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                              RINQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                                                                                                                                                                                                                                                     PFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET
                       SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                              GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                 GPREFNVTVTVRNDGEDSYRTQVTFFFDLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                      SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                              SGALKSTSCSINHPI FPENSEVTFNI TFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                               QLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                         RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Modified integrin-I or integrin I-like domain polypeptide useful as a immunogen to produce antibodies specific to polypeptide, comprises a disulfide bond such that polypeptide is stabilized in a desired conformation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Integrin; antiinflammatory; imunosuppression; nephritis; dermatitis; inflammatory disease; autoimmune disorder; Crohn's disease; human immunodeficiency virus; HIV; myocardial infarction; Sjorgen's syndrome; rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This invention relates to a modified integrin-I or integrin I-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human integrin 1 alpha-M subunit protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 109-112; 112pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                499..500
/note= "Encoded by GGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAU80252 standard; Protein; 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ت
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31-AUG-2001; 2001WO-US27227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-SEP-2000; 2000US-229700P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BLOOD RES INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Springer TA, Shimoaka
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2002-382964/41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; ABK50046.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200218583-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (BLOO-) CENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-MAR-2002
                                         737
                                                                                                                 797
                                                                                                                                                                                             857
                                                                                                                                                                                                                                                                                                                                              716
                                                                                                                                                                                                                                                                                                                                                                                                                     1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1097
                                                                                                                                                                                                                                                                    917
                                                                                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                                                                                                                                                                   1021
     721
                                                                                781
                                                                                                                                                                                                                                 901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                           용
                                                                                                                                        ઠે
                                                                                                                                                                                    a
                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                      გ
                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
enti-alpha d (Beta2 integrin alpha2 subunit) monoclonal antibody to a spinal cord injury victim. The method also involves the use of a ligand selected from ICAM-R or VCAM-I (intracellular cell adhesion molecule, vascular cell adhesion molecule). The method is useful for promoting locomotor recovery, inhibiting allocomotor damage, limiting allocomotor impairment, or limiting autonomic and sensory dysfunction following spinal cord injury. In particular, the spinal cord injury. Comprises compression of the spinal cord. The antibodies are also useful for reducing inflammation at the site of a central nervous system injury. The specification also details the identification of Beta2 integrin and proteins, for use in raising the antibodies. Beta2 integrins are implicated in diseases such as LAD (leukocyte adhesion deficiency, inflammatory response, diabetes, multiple sclerosis, arthritis, graft atherosclerosis, inflammatory bowel disease.

Crohn's disease, ulcrative collitis, immune complex alveolitis and leukaemia. The present sequence is a Beta2 integrin alpha brotein
                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HGTSGSGISPSHSQRIAG$KLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NFEALKTIQNQLREKIFAİEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PVLRVKAIMEFNPREVARNVFECNDOVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRINF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PPEALRGCPQEDSDIAFL1DGSGS11PHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TDGEKFGDPLGYEDVI PEÅDREGVI RYVI GVGDAFRSEKSROELNTI ASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RIHFTFKEFONNPNPRSLVKPITOLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                     Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                          Indele
                                                                                                                                                                                                                                                                                                                                                                                                     23;
                                                                                                                                                                                                                                                                                                                                                                                                                                          1;
                                                                                                                                                                                                                                                                                                                                                                                                       ВB
                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. 0;
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                       Score 5868;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                       99.98;
                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 99.6
Matches 1133; Conservative
                                                                                                                                                                                                                                                                                                                                                                  1153 AA;
                                                                                                                                                                                                                                                                                                                              sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
```

8

ò g ò g ò 셤 ò a

ò 셤 ò

```
domain polypeptide comprising at least one disulfide bond so that the domain is stabilised in a desired conformation. The polypeptide of the invention may have antiinflammatory or immosuppressive activities.

The polypeptides of the invention have an open conformation and are useful as immunogens to produce antibodies that selectively bind to integrin I-domain; and for identifying a modulator of integrin activity, or of interaction of an integrin and a cognate ligand. The polypeptide of the invention, or antibodies (preferably anti-LFA-1 antibody) is useful for treating or preventing an integrin mediated disorder which is an inflammatory or autoimmune disorder in a subject and for inflammatory or autoimmune disorder in a subject and for inflammatory or autoimmune disorder in a subject and for inflammatory or autoimmune disorder in a subject and for inflammatory or autoimmune disorder in a subject. The disease, nephritis; human immunodeficiency virus (HIV), myocardial inflammatoric composition comprising the peptide of the invention is useful for treating an integrin mediated disorder in a subject. The cuseful for treating an integrin mediated disorder in a subject. The sequence represents the human integrin-mediated disorders. The present sequence represents the human integrin-mediated disorders. The present sequence represents the human integrin-mediated disorders. The present sequence the mutant polypeptides of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FNLDTENAMTFQENARGFCQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TDGEKFGDPLGYEDVI PEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 YDLALDSGRPHSRAVFNETKNSTRROTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGQQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PVLRVKAIMEFNPREVARNVFECNDOVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FNLDTENAMTFQENARGFGQ$VVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKLVVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ONTGMMESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYBOTRGGOVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indela
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 5868; DB 23;
Pred. No. 0;
| Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ñ
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 99.6%;
Matches 1133; Conservative 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    557
                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

```
FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                        916
                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                             QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention comprises structurally biased variant integrin inserted (I) domain proteins, wherein the alterations to the protein occur in at least
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mac-1; integrin alpha subunit; variant integrin inserted domain protein; open conformation; integrin related inflammatory disorder; integrin related dimmunological disorder; rheumatoid arthritis; ischaemia, reperfusion; hypovolemis shock; infarction; cerebral shock;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
737 SLVGTPLSAFGNIRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                 QLELPVKYAVYWVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                            SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                           SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILENDSVFTLEPGGGAFVRSQTET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KVEPPEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New integrin I domain protein having alteration in at least 2 noncontiguous regions and exits in an open conformation, useful for treating, preventing or suppressing inflammatory or immunological disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OF TECHNOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AA014428 standard; protein; 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 1; Fig 1F; 90pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Integrin Mac-1 alpha subunit.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09-JUL-2001; 2001WO-US21805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-JUL-2000; 2000US-216600P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               bioactive agent screening
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INST
RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-148167/19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (CALY ) CALIFORNIA
(BLOO-) CENT BLOOD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200204521-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-JAN-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Springer T;
                                                                                                                                                                                                                                                                                                                                                                                      917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA014428;
                                                                                                                                             797
                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                901
                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 5
AAO14428
ID AAO1428
XX AAO 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN CONTROL O 3-M
XX IN 
         셤
                                                                                    ઠે
                                                                                                                                       셤
                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                               윱
                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

```
FT
                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                 136
                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                      196
                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             840
two noncontinuous regions. Specifically the the variant integrin I domain proteins are structurally biased to exist in the open conformation, thereby altering the binding ability of the protein. The invention also comprises nucleic acids encoding the variant integrin I domain proteins. The integrin I domain proteins and nucleic acids are useful for treating, preventing or suppressing integrin related inflammatory and immunological disorders (e.g. rheumatoid arthritis). The variant integrin I domain proteins and nucleic acids can also be used for treating: ischaemia/ reperfusion (e.g. hypovolemic shock); infarction; cerebral shock; viral infection; and cancer. The variant integrin I domain nucleic acids and proteins may be used in gene therapy, as vaccines and to screen for alpha subunit of integrin.
                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                         16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PVLRVKA IMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRINF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOGEKFGDPLGYEDVI PEAPREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                  FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                      RLQVPVEAVNMSLGLSLAAT|TSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                       RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                             FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                           TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSROELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NFEALKTIONOLREKIFA1EGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QNTGMMESNANVKGTQIGALFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                  RIHFTFKEFONNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                       Score 5868; DB 23; Length 1153;
Pred. No. 0;
                                                                                                                                                                                                                                                       1; Indels
                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                           99.98;
                                                                                                                                                                                                                                                     Matches 1133; Conservative
                                                                                                                                                                                                  1153 AA;
                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                        137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                            17
                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                 17
                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
     8888888888888888888
                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                              ò
```

a 6	76		VRNDGEDS!	YRTQVTF	GPREFNVTVTVRNDGEDSYRTQVTFFPLDLSYRKVSTLQNQRSQRSWRLACESASST	— ia i	856
è 8	841 S 857 S	GALKSTSCS 	INHPIFFE	NSEVIEN NSEVIEN	GALKSTSCSINHETFFERNEYFRITFOUDSMADGARLELMAYTSENNMFRINKT 	ENNAPRINKIEF	· ·
& A	901 0	OLELPVKYAV           OLELPVKYAV	YMVVTSHG'         YMVVTSHG'	VSTKYLN         VSTKYLN	LELPVKYAVYMVYTSHGVSTKYLNPTASENTSRVMOHOYOVSNLGQRSLPISLVFLVPV 	SLPISLVFLVPV	946
& A	961 R 977 R	RINOTVIMDR.	POVTFSEN           POVTFSEN	LSSTCHT        LSSTCHT	RINOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCD 	IAVCQRIQCDIP	1020
<b>∂</b> 1		FFGIQEEFNA'	TLKGNLSF	DWYIKTS	FGIQBEFNATLKGNLSFDWYIKTSHNHLLIVSTABILFNDSVFTLLFGGGAFVRSQTET	GOGAFVRSOTET	0
8 8	٠,	FEGIQEEFNA	TLKGNLSF	DWYIKTS	HNHLLIVSTAEILFNDSVFTLLF	ier	
රු සි	1081 X     1097 X	(VEPFEVPNP 	LPLIVGSS 	VGGLLLL        VGGLLLL	KVEPFEVPNPLPLIVGSSVGGLLLALITAALIKAGFRKQYKOMMSEGGFRGAEVQ 	= =	53
RESUJ AARO, ID	6 36 4R04136	standard;	protein;	1153	AA.		
<b>\$ \$</b>	AAR04136;						
6.2 25.5 25.5 25.5 25.5 25.5 25.5 25.5 2	25-MAR-200	03 (updated) 90 (first en	.ed) : entry)				
žä:	Alpha subuni	unit of Mac	ıc-1 leuko	cyte	adhesion receptor.		
X & &	Mac-1 alpha non-specific	ha subunit; fic defence	Mac-1 system	alpha/beta 1; integrin	eta heterodimer; rin gene superfamily.		
X S	synthetic						
X E S	ey odified-	Loc	ation/Qu	Qualifier	<b>ι</b> δ		
. E. E	ישיין וישי	 	label= pu	putative	N-glycosylation site		
. E. E	odified-	1 ·	label= pu	putative	N-glycosylation site		
144	oditied-	יי דר מ	label= pu	putative	N-glycosylation site		
- E- E	oditied-	ם יי ר	label= pu	putative	N-glycosylation site		
- L C	Modified-	ה ה ה	/*label= pu	putative	N-glycosylation site		
FT		i te	label= pu	putative	N-glycosylation site		
i ii ii		ا لا د	label= pu	putative	N-glycosylation site		
FT		4	label= pu	putative	N-glycosylation site		
. E. E	•	) <u>1</u>	/*label= pu	putative	N-glycosylation site		
. E. E	Modified	1 4		putative	N-glycosylation site		
- L 6	Modified	ם ק	/*label= pu	putative	N-glycosylation Bite		
. <b>.</b> .	Modified	, t	label= pu	putative	N-glycosylation site		
	Modified	n 4	label pr	putative	N-glycosylation site		
FF	ט ל	י נ פ	/*label= pu	putative	N-glycosylation site		
E	Modified-gi	} 4	label= pt	putative	N-glycosylation site		
FT	3	}	/*label= pu	putative	N-glycosylation site		

919

780 796 840 856

```
1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                     916
                                                                                                                                                                                                          496
                                                                        KVEPPEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                        SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                             QLELPVKXAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                            QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLP1SLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTABILFNDSVFTLLPGQGAFVRSQTET
                         QNTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                           HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                         HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                            GPREFNYTVTVRNDGEDSYRTOVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                         SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                               RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTABILFNDSVFTLLPGQGAFVRSQTET
                                                          PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                           PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                           PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                            SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
          QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  p150,95 leucocyte adhesion receptor alpha-subunit;
hairy cell leukaemia; rhinovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          p150.95 alpha subunit encoded by clone lambdaX47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /label=glycosylation site 385..387
/label=glycosylation site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61..63
/label=glycosylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAR07120 standard; protein; 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (updated)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Key
Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-MAR-2003
05-FEB-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAR07120;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1097
                                                                                                                                                                                                            661
                                                                                                                                                                                                                                     677
                                                                                                                                                                                                                                                                                     737
                                                                                                                                                                                                                                                                                                                                                                                      857
                                  437
                                                                                  497
                                                                                                           541
                                                                                                                                    557
                                                                                                                                                            601
                                                                                                                                                                                    617
                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                      797
                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                       917
                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAR07120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 윤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠ
                           용
                                                          ઠે
                                                                            a
                                                                                                     ò
                                                                                                                              g
                                                                                                                                                            ઠે
                                                                                                                                                                             유
                                                                                                                                                                                                    ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16
                                                                                                                                                                                                                                                                                                                                                                                                  Mac-1 alpha subunit is involved in the response to inflammation, i.e. recognition of and migration to sites of inflammation. It also attaches to cellular substrates as part of this function making it useful in visualising endothelial tissue.

Mac-1 is a member of the Integrin Gene superfamily.

(Updated on 25-MAR-2003 to correct PR field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMBQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RIHFTFKEFONNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NFEALKTIQNQLREKIFAIEGTOTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                       for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
1045..1047

/*label= putative N-glycosylation site

1051..1053

/*label= putative N-glycosylation site

1076..1078

/*label= putative N-glycosylation site
                                                                                                                                                                                                                                                                                                                                      corresp. DNA useful and in diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 5858; DB 11;
Pred. No. 0;
3; Mismatches 2;
                                                                         1..16
/*label= signal peptide
1106..1134
/*label= putative transmembrane
                                                                                                                                                                                                                                                  (DAND ) DANA FARBER CANCER INST INC.
                                                                                                                                                                                                                                                                                                                                      New pure Mac-1 alpha sub-unit and cinflammation and viral infections,
                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page ?; ?pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99.7%;
                                                                                                                                                                                      89EP-0115159
                                                                                                                                                                                                              88US-0235353
89US-0321239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity 99.6
Matches 1132; Conservative
                                                                                                                                                                                                                                                                          Corbi A;
                                                                                                                                                                                                                                                                                                  WPI; 1990-125938/17.
N-PSDB; AAQ04043.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1153 AA;
 Modified-site
                        Modified-site
                                                 Modified-site
                                                                                                                                                                                                                                                                          Springer TA,
                                                                                                                                                                                                               23-AUG-1988;
09-MAR-1989;
                                                                                                                                                                                     17-AUG-1989;
                                                                                                                                                              25-APR-1990
                                                                                                                                    EP364690-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                 region
                                                                         region
```

ò 엄 ò a ઠે g g ઠે g

ò

g ò

```
1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           914
                                                                                                                                                                                                                                                         GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                                                                                                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       854
                                                                                                            TDGKKEGDSLDYKDVIPMADAAGIIRYAIGVGLAFQNRNSWKELNDIASKPSQEHIFKVE 317
                                                                                                                                                                                                                                                                                                    437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PFFGIOEEPNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                      HGTSGSGISPSHSQRIAGSKLSPRLQYFQQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PVLRVKAIMEFNPREVARNVFECNDOVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SNLELNAEVWWNDGEDSYGTTITFSHPAGLSYRYVAEGQKQGQLRSLHLTCDSA--PVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SCALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QLELPVXXAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                      TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                          301 NFEALKTIONQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
RIHFTFKEFONNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW65091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW65091
                                                                                                                                                                                                                   318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         797
                                                                                                                               258
                                                                                                                                                                                                                                                                                                                                                                                           438
                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                      241
                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                       378
                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAW65091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SAXEX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                   셤
                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RLOVPVEAVNMSLGLSLAATTSPPOLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GLOVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     clone lambda X47 was isolated from a cDNA library constructed from total. RNA extracted from phorbol myristate acetate stimulated HL-60 myelomonocyric cells. The library was screened with oligonucleotide probabe based on tryptic peptide fragments of 150.95. The sequence can be attached to appropriate control elements and expressed in prokaryotic and eukaryotic dells. The protein can be used to treat or prevent rhinoviral infection because it interacts with ICAM-1 and inhibits cell-virus attachment. It can also be used as an anti-inflammatory agent.

See also AA006063+4, AA0060669, AAR07121-8 and AAR07152-6. (Updated on 25-MAR-2003 to correct PR field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Treatment of viral esp. rhino-viral infection - by admin. of alpha sub-unit of p150.95 cell surface adhesion receptor, opt. together with a beta chain of CD-18 family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       . 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Match Solution (1987) Score 3464; DB 11; Local Similarity 61.1%; Pred. No. 3e-279; les 690; Conservative 138; Mismatches 295;
392..394
/labbl=glycosylation signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and signal and sig
                                                                                                                                                                                                                       939..941
/label=glycosylation s. 1050..1052
/label=glycosylation s. 1108..1133
/label=transmembrane
                                                                                                                                                                                                                                                                                                                                                                        /label=signal peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INC
                                                                                                                                                                                                                                                                                                                                                                                                 20..44
/label=N-terminus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Fig 3; 59pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     90WO-US01257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                89US-0305458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FARBER CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Springer TA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1990-304985/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1163 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; AAQ06068.
    Modified-site
                                             Modified-site
                                                                                      Modified-site
                                                                                                                                 Modified-site
                                                                                                                                                                                                                       Modified-site
                                                                                                                                                                                                                                                                Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (DAND ) DANA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-FEB-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09-MAR-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO9010646-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20-SEP-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ery Match
                                                                                                                                                                                                                                                                                                           Domain
                                                                                                                                                                                                                                                                                                                                                         Region
                                                                                                                                                                                                                                                                                                                                                                                                 Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Corbi
```

8 6 8

ઠે

556

497

99

780 196 854

```
GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             leukocyte integrin; Leu-CAM; leukointegrin; immune response;
inflammation; leukocyte adhesion deficiency; LAD; Type I diabetes;
atherosclerosis, multiple sclerosis; sethma; psoriasis; beta2 integrin;
lung inflammation; acute respiratory distress syndrome; Crohn's disease;
rheumatoid arthritis; central nervous system injury; CD11c.
                                                                                                                                                                                                                                                                                                                                                                                                                                       HGVLGPSISPSHSQRIAGSQLSSRLQYFGQALSGCGDLTQDGLVDLAVGARGQVLLLRTR
                                                                                                                                                                                                                                                                                                                                                                 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEGOKOGOLRSLHLTC--CSAPVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SCALKSTSCSINHPIFPENSEVTFNITFDVDSKASLCNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SQGTWSTSCRINHLIFRGGAQITFLATFDVSPKAVGLDRLLLIANVSSENNIPRTSKTIF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QLELPVKYAVYMVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QLELPVKYAVYIVVSSHEQFTKYLNPSESEEKESHVAMHRYQVNNLGQRDLPVSINFWVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PPFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAFLYPPNMSPTFINMSQENVDMRDSYLGYSTELALWKGVQSLVLGAPRYQHIGKAVIFI
                                                                                                                                               PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVA IGAPGEEDNRGAVYLF
                                                                                                                                                                                                                         HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                            QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                            PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        macrophage infiltration inhibition; alpha_d integrin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAB07361 standard; Protein; 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human CD11c protein sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAB07361;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                      677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                       361
                                                                                           378
                                                                                                                              421
                                                                                                                                                              438
                                                                                                                                                                                                   481
                                                                                                                                                                                                                                      498
                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                         557
                                                                                                                                                                                                                                                                                                                                                                                617
                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             915
                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB07361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                       8
                                                                                                                            ò
                                                                                                                                                      a
                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                      ठ
                                          ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This sequence represents a human beta-integrin CDIIc subunit which is used to describe a method for identifying compounds that modulate the interaction of the beta-integrin alpha-d subunit with a binding partner of alpha-d which involves contacting an alpha-d polypeptide with an alpha-d binding partner, one of which is immobilised and the other of which is labelled, in the presence of a test compound, and determining if the compound affects binding between the alpha-d polypeptide and alpha-d binding partner, where the alpha-d polypeptide is alpha-d or its fragment comprising the cytoplasmic, transmembrane or extracellular domain of alpha-d. Compounds that modulate alpha-d binding could be used to treat diseases such as type-I diabetes, atherosclerosis, multiple sclerosis, softeness stransmentials, lung inflammation, acute respiratory distress
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NFEALKTIONOLREKIFAIEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              79
                                   Beta-integrin alpha-d subunit; human; modulator; treatment; psoriasis; type-I diabetess; atherosclerosis; multiple sclerosis; asthma; lung inflammation; acute respiratory distress syndrome; CDIIc subunit; rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RLQVPVEAVNMSLGLSLAAPTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RIHFTFKEFONNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Screening assay for modulators of integrin binding - using immobilised or labelled alpha-d polypeptide, useful for, e.treating type-I diabetes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 3450; DB 19;
Pred. No. 4.4e-278;
i; Mismatches 290;
   subunit protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 5; Fig 1A-D; 106pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 689; Conservative 144;
                                                                                                                                                                                                                                                                    95US-0485618.
93US-0173497.
94US-0286889.
94US-0362652.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      58.7%;
                                                                                                                                                                                                                                                                                                                                                                                                  Van DER VIEREN
                                                                                                                                                                                                                                      95US-0485618
   Beta-integrin CD11c
                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1998-206565/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1163 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                               CORP.
                                                                                                                                                                                                                                                                                      23-DEC-1993;
05-AUG-1994;
21-DEC-1994;
                                                                                                                                                                                                                                                                                                                                                                                                  Gallatin WM,
                                                                                                                                                                                                                                                                                                                                                               (ICOS-) ICOS
                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                      07-JUN-1995;
                                                                                                                                                               USS728533-A.
                                                                                                                                                                                                                                                                      07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
   Human
```

1019

1034

1094

8 ò 셤

ò

유

ò

셤

ò

셤

497

437

556 900 616 999 919

```
Betaz integrin, alphaD subunit; CD11c subunit; CD11b subunit; LAD; leukocyte adhesion deficiency; inflammatory response; diabetes; multiple sclerosis; arthritis; atherosclerosis; neuroprotective; inflammatory bowel disease; Crohn's disease; ulcerative colitis; immune complex alveolitis; leukaemia; ICAM-R; VCAM-1; anti-inflammatory; intracellular cell adhesion molecule; wascular cell adhesion molecule; vascular cell adhesion molecule; autonomic dysfunction; sensory dysfunction; spinal cord injury.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PPFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        797 SNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEG&QQQLRSLHLTC--CSAPVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SCALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              915 QLELPVKYAVYIVVSSHEQFTKYLNFSESEEKESHVAMHRYQVNNLGQRDLPVSINFWVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     960 VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                   PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                         PRGWR-RWWCDAVLYGEQGHPWGRFGAALTVLGDVNGDKLTDVV1GAPGEEENRGAVYLF
                                                                                                                                                                                                                                   HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                  PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                               661 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human Beta2 integrin alphaCD11c subunit.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABG61470
ID ABG61470 standard; Protein; 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABG61470;
                                                                                                         438
                                                                                                                                                   481
                                                                                                                                                                                             498
                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                               557
                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                   셤
                                                                                                                                                   ઠે
                                                                                                                                                                                         셤
                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                          g
                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Integrins are a class of membrane-associated molecules that participate in cellular adhesion. Integrins are made up of an alpha subunit and a beta subunit. One class of human integrins are restricted to expression in white blood cells and have a common beta2 subunit: the leukocyte integrins, Leu-CAMS, leukointegrins or beta2 integrins. Beta2 integrins chave an important role in immune and inflammatory responses. The present protein sequence is the human integrin alpha subunit clinic. This sequence was used in an alignment to identify a novel beta2 integrin alpha subunit: alpha (AAA600148). The present sequence has sequence was used in an alignment to identify a novel beta2 integrin alpha subunit: alpha d (AAA600148). The present sequence has approximately 66% identify to the protein sequence of alpha d. The Alpha_d gene and protein may be useful in therapy for diseases linked to aberrant alpha d function e.g. Type I diabetes, atheroselerosis, cultiple sclerosis, asthma, psoriasis, lung inflammation, acute respiratory distress syndrome, rehematoid arthritis and leukocyte adhesion deficiency (LAD). In addition, anti-alpha d monoclonal antibodies may be used in the inhibition of macrophage infiltration at the site of a central nervous system injury. The monoclonal antibodies can also be used to detect and diagnose Crohn's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NFEALKTIQNQLREKIFALEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361 GVFLYTSKEKSTFINMTRÅDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DFDALKDIQNQLKEKIFAIEGTETISSSFELEMAQEGFSAVFTPDGPVLGAVGSFTWSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LPVSRQECPRQEQDIVFLIDGSGSISSRNFATMMNFVRAVISQFQRPSTQFSLMQFSNKF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                   monoclonal antibodies to inhibit inflammation at central nervous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tch 58.7%; Score 3450; DB 21; Length 1163; cal Similarity 61.0%; Pred. No. 4.4e-278; 659; Conservative 144; Mismatches 290; Indels 6;
                                                                                                                                                                                                                                                                                                                                                                     integrin d
and reduce
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 5; Fig 1; 270pp; English
                                                                                                                                                                                                                                                                                   Van Der Vieren
                                                                                                                                    99WO-US27139
                                                                                                                                                                            98US-0193043.
                                                                                                                                                                                                                                                                                                                                                                     Use of novel anti-alpha macrophage infiltration system injury sites
                                                                                                                                                                                                                                                                                                                             WPI; 2000-387751/33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1163 AA;
                                                                                                                                                                                                                                            CORP
                                              WO200029446-A1
           Homo sapiens
                                                                                                                                                                                                                                         (1cos-) 1cos
                                                                                                                                    16-NOV-1999;
                                                                                                                                                                              16-NOV-1998;
                                                                                                                                                                                                  08-JUL-1999;
                                                                                                                                                                                                                                                                                   Gallatin MW,
                                                                                          25-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
```

g

õ

ò 8

Ω ò g

요

ò g ò

ઠે

1019 1034 1079

900

780 796 840 854

959 914

974

```
1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1094
                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        854
                                                                                                                                                                                                                                                                                                                                              1035 PSFSVQEELDFTLKGNLSFGWVRQILQKKVSVVSVAEIIFDTSVYSQLPGQEAFMRAQTI
  GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                      HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                             HGVLGPSISPSHSORIAGSOLSSRLOYFGOALSGGODLTODGLVDLAVGARGOVLLLRTR
                                                                                                                                                                                                                                                                                                                                                                                                                              721 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    960 VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                            PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                 PRGWR-RWWCDAVLYGEQGHPWGRFGAALTVLGDVNGDKLTDVVIGAPGEEENRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                  YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                   PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Prostate cancer; gene expression; differential regulation; molecular marker; drug target; cancer detection; cancer diagnosis; cancer staging; cancer grading; cancer assessing; cancer monitoring.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1095 TVLEKYKVHNPIPLIVGSSIGGLLLALITAVLYKVGPFKRQYKEMMEE 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Protein differentially regulated in prostate cancer #9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ż
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABU07406 standard; Protein; 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200281638-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-OCT-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                 498
                                                                                                                                                                                                                                                                                                                                                           617
                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABU07406;
                                     378
                                                                            421
                                                                                                                    438
                                                                                                                                                            481
                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                              557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ሯ
                                                                                                        요.
                                                                                                                                                         ò
                                                                                                                                                                                         g
                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                The Invention Featers to promotering tocometer recovery, inturiting autonomic and sensory dysfunction following spinal cord injury by administering and sensory dysfunction following spinal cord injury by administering an arti-alpha d (Betaz integrin alpha2 subunit) monoclonal antibody to a caricialpha d (Betaz integrin alpha2 subunit) monoclonal antibody to a spinal cord injury victim. The method also involves the use of a ligand selected from ICAMP or VCAM-1 (intracellular cell adhesion molecule, vascular cell adhesion molecule). The method is useful for molecule, vascular cell adhesion molecule). The method is useful for compression or inpubiting autonomic and sensory dysfunction for locomposition compression of the spinal cord. The antibodies are also useful for reducing inflammation at the site of a central nervous system injury. The specification also details the identification of Beta2 integrin alpha and proteins, for use in raising the antibodies. Beta2 integrin alpha are implicated in disease such as LAD (leukocyte adhesion deficiency, inflammatory response, diabetes, multiple sclerosis, arthritis, graft atherosclerosis, inflammatory bowel disease,

crohn's disease, ulcrative colitis, immune complex alveolitis and leukaemia. The present sequence included for comparison with the Beta2 integrin alpha protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TDGEKFGDPLGYEDVI PEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NFEALKTIONOLREKIFA IEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RIHFTFKEFONNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                            Use of an anti-alpha-d monoclonal antibodies for promoting locomotor recovery, inhibiting locomotor damage, limiting locomotor impairment, or limiting autonomic and sensory dysfunction following spinal cord
                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to promoting locomotor recovery, inhibiting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 58.7%; Score 3450; DB 23; Length 1163; Best Local Similarity 61.0%; Pred. No. 4.4e-278; Matches 689; Conservative 144; Mismatches 290; Indels 6;
                                                                                                                                                                                                                                                                                                                                                                                  Example 5; Page 194-198; 270pp; English
                                                                                                                                                                                                   Vieren
                                                                            15-OCT-2001; 2001WO-US32059.
                                                                                                                    13-OCT-2000; 2000US-0688307.
                                                                                                                                                                                                 Van Der
                                                                                                                                                                                                                                    WPI; 2002-463260/49.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1163 AA;
WO200230980-A2
                                                                                                                                                                                             Gallatin WM,
                                     18-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                          injury
```

ઠે g ò g ò 요 ò 셤 ò 셤 ò

```
QTHLTFEEFRRTSNPLSLLASVHQLQGFTYTATAIQNVVHRLFHASYGARRDATKILIVI 257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-DEC-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1080
                                                                                                                                                                                                                                                                                                    498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR78166;
                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                            557
                                                                                                                                                                                                                                                                                                                                                                                                                         617
                                                                                                                                                                                                                                                                                                                                                                                                                                                       199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                            421
                                                                                                                                                                                                                                        438
                                                                                                                                                  361
                                                                                                                                                                             378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAR78166
ID AAR7
XX AC AAR7
AC AAR7
DT 28-D
XX DE Huma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                          윱
                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                               윱
                                                                                                                                                                                                                                                                                                                                ሯ
                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                     셤
                                                                                       δ
                                                                                                                  셤
                                                                                                                                               ઠે
                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                              The invention describes genes (1) which are differentially regulated in prostate cancer. (2) Is useful for diagnosing a prostate cancer in a sample comprising prostate tissue, which involves determining the number of target genes which are differentially regulated in the sample comprises prostate cancer. (1) Is useful for assessing a therapeutic or preventive intervention in a subject haying a prostate cancer, which involves corrested expression levels in a sample comprising prostate cancer. (2) is useful for identifying agents that modulate a biological activity of a polypeptide differentially regulated in prostate cancer. (2) is also useful for identifying agents that modulate a biological activity of a polypeptide differentially regulated in prostate cancer cancer cancer cancer cancer cancer cancer cancer contacting a polypeptide differentially regulated in prostate cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer (1) is useful as molecular markers, as a fung targets, and for detecting, the test agent to modulate a biological activity of the polypeptide, and for detecting, prostate cancer. (1) is useful as molecular markers, as a fung targets, and for detecting, produces are useful for prostate cancer. (1) and its expression conditions especially relating to prostate cancer. (1) and its especially cancer conditions especially relating to prostate cancer. (1) is useful for assessing cancer e.g., to determine the type conditions in therapeutic applications of prostate cancer. (2) is useful for assessing cancer e.g., to determine the type conditions in the appropriate and used as target for therapy or drug cancer, its stage of development, the nature of genetic affect, etc. (2) is useful in therapeutic applications to treat prostate cancer. The polypeptide and of genetic development, the nature of genetic cancer is carcer in these pathways physiologically relevant to prostate cancer permits the carget in these pathways which are useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RIQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RIHFTFKEFQNNPNPRSLÝKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                               Novel genes which are differentially regulated in prostate cancer, useful for diagnosing prostate cancer in prostate tissue sample and assessing therapeutic or preventive intervention in prostate cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tch 58.7%; Score 3448; DB 24; al Similarity 60.9%; Pred. No. 6.5e-278; 688; Conservative 136; Mismatches 299;
                                                                                                                                                                                                                                            Claim 1; Page 225-228; 416pp; English.
                                                                            (ORIG-) ORIGENE TECHNOLOGIES
                                06-APR-2001; 2001US-281731P.
                                                                                                                                    WPI; 2003-058520/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1163 AA;
                                                                                                          ö
                                                                                                          Jay
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                 patients
                                                                                                        Sun Z,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loca
Matches
   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

```
1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                            949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  974
                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              736
                                                                                                                                                                         437
                                                                                                                                                                                                           480
                                                                                                                                                                                                                            556
                                                                                                                                                                                                                                                                                                                                                   600
                                                                                      GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                  TDGEKFGDPLGYEDVI PEADREGVIRYVI GVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                            PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                     PRGWR-RWWCDAVLYGEQGHPWGRFGAALTVLGDVNGDKLTDVV1GAPGEEENRGAVYLF
                                                                                                                                                                                                                                                                                                                                                   HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                         PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                               YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GPREFNVTVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SNLELNAEVMYWNDGEDSYGTTITFSHPAGLSYRYVAEGQKQGQLRSLHLTCDSAPVG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                  301 NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                           ONTEMWESNANVKGTOIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGOVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAR78166 standard; Protein; 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human beta-2 integrin alpha-d.
```

Tue

: 24 %

1

```
PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                              615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            794 SSLELNVIVTVWWAGEDSYGTVVSLYYPAGLSHRRVSGAQKQPHQSALRLACETV-PTED 852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                495
                                                                                                                                                                                                                                                                                                                                                           PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT 660
 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PSFSVOEELDFTLKGNLSFGWVRETLOKKVLVVSVAEITFDTSVYSQLPGGEAFMRAQME
                  TDGQKYKDPLEYSDVI PQAEKAGIIRYAIGVGHAFQGPTARQELNTISSAPPQDHVFKVD
                                                                          VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                            NFEALKTIONOLREKIFAIEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                      GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                               ONTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGOVSVCPL
                                                                                                                                                                                                                                                                                                   HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                        YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                        PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Beta 2 integrin alpha d subunit; human; cell migration; cell adhesion; phagocytosis; diabetes; atherosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAW23049 standard; Protein; 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            integrin alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAW23049;
                               256
                                                                                        316
                                                                                                                                                376
                                                                                                                                                                                                             436
                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                               556
                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                         919
                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                    674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          096
                                                           301
                                                                                                                      361
                                                                                                                                                                               421
                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                    496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAW23049
IID AAW2
XX
XX
XX
DT 24-F
XX
DE Huma
XX
KW Beta
KW Cell
                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           음
                     셤
                                                         ઠે
                                                                                   유
                                                                                                                      ઠ
                                                                                                                                           셤
                                                                                                                                                                            ઠે
                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                    ે
                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      કે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PLHIRPEAVNMSLGLTLAASTNGSRLLACGPTLHRVCGENSYSKGSCLLLGSRW-EIIQT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FNLDVEEPTIFQEDAGGFGGSVVQFGGSRLVVGAPLEVVAANQTGRLYDCAAATGMCQPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FNLDTENAMTFOENARGFGGSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A probe based on a partial cDNA clone (given in AAQ91727) of canine alpha-TM1 was used to screen a human spleen cDNA library to identify clone i9A2 encoding the beta-1 integrin alpha-subunit, alpha-d. The cDNA was manipulated to allow expression of recombinant alpha-d subunit in COS and CHO cells.
Beta-2 integrin alpha-d subunit; antiinflammatory; arteriosclerosis;
inflammatory bowel disease; asthma.
                                                                                                                                    insert
site for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alpha sub-unit polypeptide of human beta 2 integrin - used to identify potential antiinflammatory agents, for the treatment of graft arteriosclerosis, inflammatory bowel disease, asthma, etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .,
89
                                                                                                                                  this region is homologous to the insert
common to CH11a,b,c and may be a site f
interaction with ICAM family proteins"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                            site"
                                                                                                                                                                                               putative cation binding site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 58.2%; Score 3417; DB 16; Best Local Similarity 59.8%; Pred. No. 2.5e-275; Matches 675; Conservative 162; Mismatches 284;
                                                                                                                                                                                                                          /note= "putative cation binding 592..600
                                                                                                                                                                                                                                                        "putative cation binding
                                                                                                 /note= "extracellular domain"
150.352
/note= "this region is homolog
                                                                                                                                                                                                                                                                                    /note= "transmembrane region
1129..1161
/note= "cytoplasmic domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 7; Page 82-87; 172pp; English.
                                                                          Location/Qualifiers
                                                                                                                                                     Common
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Van Der Vieren
                                                                                                                                                                                                                                                                                                                                                                                                                                      94US-0286889.
                                                                                                                                                                                                                                                                                                                                                                                                          94WO-US14832
                                                                                                                                                                                                                                                        /note= "put
1109..1128
                                                                                                                                                                             465..474
/note= "p1
518..527
                                                                                        17..1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1995-240603/31.
N-PSDB; AAQ91712.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1161 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gallatin WM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (ICOS-) ICOS
                                                                                                                                                                                                           Binding-site
                                                                                                                                                                                                                                                                                                                                                                                                                                      05-AUG-1994;
23-DEC-1993;
                                                                                                                                                                               Binding-site
                                                                                                                                                                                                                                        Binding-site
                                                                                                                                                                                                                                                                                                                                                                                                          21-DEC-1994;
                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                               W09517412-A1
                                                                                                                                                                                                                                                                                                                                                                            29-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                        Domain
                                                                                                                      Region
                                                                                                                                                                                                                                                                      Region
                                                                                                                                                                                                                                                                                                   Domain
                                                                            Κeγ
```

g

셤 ò

ò

8 g ò

780

793

720 733

540 555

```
1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         959
                                                               99
                                                                                                                                                                                                                                                                                                                                                                                                                                             673
                                                                                                                      420
                                                                                                                                                                                    480
                                                                                                                                                                                                                                                            495
                                                                                                                                                                                                                                                                                                                        555
                                                                                                                                                                                                                                                                                                                                                     900
                                               TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                               PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                          HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                               PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                    YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                          NFEALKTIONOLREKIFAIEGTOTGSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                   GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW72825 standard; Protein; 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human alpha-d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                      556
                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                  919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                           301
                                                                                                                                                                                                                                                               436
                    196
                                                 241
                                                                               256
                                                                                                                                                                      361
                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BXXXXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                            셤
                                                                                                           ઠે
                                                                                                                                     셤
                                                                                                                                                                      ઠે
                                                                                                                                                                                                   유
                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                        ò
                                      જે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             77 PLHIRPEAVNMSLGLTLAASTNGSRLLACGPTLHRVCGENSYSKGSCLLLGSRW-EIIQT 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 FPEALRGCPQEDSDIAFLIDGSGGIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181 RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This polypeptide comprises a novel human beta 2 integrin subunit, designated alpha d. Its sequence was deduced from a CDNA clone (see AAT79220) isolated from a spleen CDNA library. Alpha d is involved in cell migration, phagocytosis and cell-cell interaction. Recombinant alpha d polypeptides can be expressed in transformed host cells for use in assays for identifying antibodies or other compounds that modulate alpha d activity or which modulate the interaction between alpha d activity or which modulate the cranting diseases in which macrophages are implicated. Treatment is applicable to disease states in which alpha d binding, or localised accumulation of cells which express alpha d, is implicated such as such as type I diabetes, atherosclerosis, multiple sclerosis, asthma, psoriasis, lung inflammation, acute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                           /label= Transmembrane domain
/note= "homologous to the human CD11c transmembrane
region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rat
                                                                                                                                                                                                                                    "region homologous to the I (insertion) domain common to CD11a, CD11b and CD11c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     beta2 integrin subunit, useful to detect subunit in cells modulate its activity
    multiple sclerosis; asthma; psoriasis; lung inflammation; acute respiratory distress syndrome; rheumatoid arthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          respiratory distress syndrome and rheumatoid arthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     58.2%; Score 3417; DB 18;
llarity 59.8%; Pred. No. 2.5e-275;
Conservative 162; Mismatches 284;
                                                                                                17..1108
/label= Extracellular_domain
1109..1128
                                                                                                                                                                                                       /label= Cytoplasmic_domain
150..352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 5; Page 116-120; 222pp; English
                                                                                ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                       Van Der Vieren
                                                                                                                                                                                                                                                                                                                                              97WO-US02713
                                                                                                                                                                                                                                                                                                                                                                           96US-0605672
                                                                                                                                                                                         .1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1997-435154/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1161 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                          CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; AAT79220.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Simil
Matches | 675;
                                                                                                                                                                                                                                                                                                                                                                                                         (ICOS-) ICOS
                                                                                                                                                                                                                                                                                                                                              24-FEB-1997;
                                                                                                                                                                                                                                                                                                                                                                            22-FEB-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Gallatin WM,
                                                                                                                                                                                                                                                                                  WO9731099-A1
                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                28-AUG-1997,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11
                                                                                                  Domain
                                                                                                                                Domain,
                                                                                                                                                                                           Domain
                                                                                                                                                                                                                         Domain
```

971

셤 ઠે 8 g ò

555

```
Beta-integrin alpha-d subunit; human; modulator; treatment; psoriasis; type-I diabetes; atherosclerosis; multiple sclerosis; asthma; lung inflammation; acute respiratory distress syndrome; rheumatoid arthritis.
                                                                                     PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                       HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                          PVLRVKA I MEFNPREVARNV FECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                         SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                      SLVREPIPSPONLRPVLAVGSQDLFTASLPFEKNCGQDGLCEGDLGVTLSFSGLQTLTVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDPLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                      YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                     QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     subunit protein isolated from clone 19A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Protein; 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human Beta-integrin alpha-d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAW65089 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               096
                                                                                                                                                                                                                                                                                                         919
                                                                                                                                                                                                                                                                                                                                                                       674
                                                                                                                                                                                                                                                                                                                                                                                                                                           734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1030
                                                                                                                                     481
                                                                                                                                                                      496
                                                                                                                                                                                                      541
                                                                                                                                                                                                                                     556
                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           794
                                  376
                                                                     421
                                                                                                    436
                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Key
Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW65089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    THX SXXXXXXXXXXXXXXXXX
                                                                                                                         જે
                                                                                                                                                               셤
                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                              용
                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present sequence represents human alpha d. The present invention describes: (1) an antibody that specifically binds alpha d, which is a beta 2 integrin alpha-subunit polypeptide; (2) a monoclonal antibody as in (1); (3) an anti-idiotype antibody specific for the monoclonal antibody of (2); (4) a hybridoma call line producing the monoclonal antibody of (2); (4) a hybridoma call line producing the monoclonal antibody of (2). Antibodies specific for alpha d can be used in immunohistochemical analysis to localise alpha d to subcellular compartments or individual cells within tissues. Substances that modulate alpha d binding (which may include antibodies) can be used to treat diabetes, atherosclerosis, multiple sclerosis, asthma, psoriasis, lung inflammation, acute respiratory distress syndrome or arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FNLDVEEPTIFQEDAGGFGOSVVOFGGSRLVVGAPLEVVAANOTGRLYDCAAATGMCQPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TDGEKFGDPLGYEDVI PEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NFEALKTIONOLREKI FAIEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
Alpha-d; beta-2 integrin alpha subunit; extracellular alpha-d; immunoglobulin; fusion protein; binding molecule; antibody; immunohistochemical analysis; diabetes; atherosclerosis; asthma; multiple solerosis; psoriasis; lung inflammation; arthritis; acute respiratory distress syndrome.
                                                                                                                                                                                                                                                                                                                                                                                                                                             - useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                        Antibodies specific for beta-2 integrin alpha-subunit d
immunohistochemical analysis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 3417; DB 19;
Pred. No. 2.5e-275;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 59.84; Free. No. 2.05 2.0).
Matches 675; Conservative 162; Mismatches 284;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 5; Column 61-66; 106pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           58.2%;
                                                                                                                                                                                                                                 95US-0482293.
93US-0173497.
94US-0286889.
94US-0362652.
                                                                                                                                                                                                    95US-0482293
                                                                                                                                                                                                                                                                                                                                                        Van Der
                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1998-609318/51.
N-PSDB; AAV67281.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1161 AA;
                                                                                                                                                                                                                                                                                                                        CORP.
                                                                                                                                                                                                                                                                                                                                                        Gallatin WM,
                                                                                                                                                                                                                                                                                                                     (ICOS-) ICOS
                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                     23-DEC-1993;
05-AUG-1994;
                                                                                                                                                                                                                                                                                      21-DEC-1994;
                                                                                                                                                                                                    07-JUN-1995;
                                                                                                                                                                                                                                   07-JUN-1995;
                                                                                                                                  US5831029-A.
                                                                                                                                                                     03-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
```

Б

g

ò

g

ò

원

ò

g

õ

8

1019

971

840

780

673 720 733

```
436
                                                                                                                                                   964
                                                                                                                                                                       541
                                                                                                                                                                                            556
                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                            674
                                                                                                                                                                                                                                                                                                                    734
                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                             794
                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                                                        421
                                                                                                                               481
                                                                                                                                                                                                                                                                                                 721
                                                 361
                                                                                                                                                                                        g
                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                           음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                       셤
                                                ઠે
                                                                셤
                                                                                                        윱
                                                                                                                              δ
                                                                                                                                              셤
                                                                                                                                                                  ઠ
                                                                                                                                                                                                               δ
                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                               This sequence represents a novel human beta-integrin alpha-d subunit. This sequence is used in a method for identifying compounds that modulate the interaction of alpha-d with a binding partner of alpha-d which involves contacting an alpha-d polypeptide with an alpha-d binding partner, one of which is immobilised and the other of which is labelled, in the presence of a test compound, and determining if the compound affects binding between the alpha-d polypeptide and alpha-d binding partner, where the alpha-d polypeptide is alpha-d or its fragment comprising the cytoplasmic, transmembrane or extracellular domain of alpha-d. Compounds that modulate alpha-d binding could be used to treat diseases such as type-I diabetes, atherosclerosis, multiple sclerosis, syndrome and rheumatoid arthities.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96
                                                            insertion domain of CD11 subunits'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RIHFTFKEFONNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PNLDTENAMT FOENARGF GOSVVOLOGSRVVVGA POETVAANORGSLYQCDYSTGSCEPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FPEALRGCPQEDSDIAFL DGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..
60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1161;
                                                                                                                                                                                                                                                                                     Screening assay for modulators of integrin binding - using immobilised or labelled alpha-d polypeptide, useful for, e. treating type-I diabetes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Match 58.2%; Score 3417; DB 19; Length Local Similarity 59.8%; Pred No. 2.5e-275; Length 675; Conservative 162; Mismatches 284; Indels
        17..1161
/note= "Beta-integrin alpha-D subunit"
                                                150..352
/note= "homologous to
1129..1161
/label= cytoplasmic
                                       extracellular
                                                                                                                                                                                                                                                                                                                               English.
 /label= signa
                                                                                                                                                               95US-0485618.
93US-0173497.
94US-0286889.
94US-0362652.
                                                                                                                                                                                                                                     Van DER VIEREN
                                                                                                                                                                                                                                                                                                                                 Example 5; Fig 1A-D; 106pp;
                                                                                                                                            95US-0485618
                             17..1108
/label= e
                                                                                                                                                                                                                                                          WPI; 1998-206565/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1161 AA;
                                                                                                                                                                                                                  CORP.
                                                                                                                                                                                                                                                                    N-PSDB; AAV35236
                                                                                                                                                                        23-DEC-1993;
05-AUG-1994;
21-DEC-1994;
                                                                                                                                                                                                                 SODI (-SODI)
                                                                                                                                                                                                                                    Gallat'in WM,
                                                                                                                                           1995;
                                                                                                   USS728533-A
                                                                                                                       17-MAR-1998
                                                                                                                                                                07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
           Protein
                               Domain
                                                   Domain
                                                                      Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

1019 1029 1079 1089 900 959 971 840 852 911 435 480 495 540 555 900 615 9 673 720 733 780 793 SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF EG-LRSSRCSVNHPIFHEGSNGTFIVTFDVSYKATLGDRMLMRASASSENNKASSKATF GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV QLELPVKYAVYMVVTSHGVSTKYLNF-TASENTSRVMQHQYQVSNLGQRSLPISLVFLVP 960 VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL PRGORARWOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG SLVREPI PSPQNLRPVLAVGSQDLFTASLPFEKNCGQDGLCEGDLGVTLSFSGLQTLTVG 

Search completed: November 25, 2003, 14:16:38 Job time : 40.2978 secs

```
FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 FNLDTENAMIFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                             Sequence Sequence Sequence Sequence
                                                                                                                                                                                                      Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                     Sequence Sequence
                                Sequence
Sequence
Sequence
                                                                                                                                          Sequence
Sequence
                                                                                                                                                                         Sequence
                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                      99.9%; Score 5868; DB 1; Length 1153; 99.6%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/NS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/173,497
US-08-605-672-2
US-08-402-293A-2
US-09-413-36-2
US-09-113-043-2
US-09-688-307A-2
US-08-688-307A-2
US-08-68-518-99
US-08-482-293A-99
US-08-13-363-99
US-09-113-041-99
US-09-113-041-99
US-09-113-041-55
US-09-688-307A-55
US-09-688-307A-55
US-08-362-652-55
US-08-362-652-55
US-08-362-652-55
US-08-362-652-55
US-08-362-652-55
US-08-362-652-55
US-08-362-652-55
US-08-362-652-55
US-08-362-652-55
US-08-362-652-55
US-08-362-652-55
US-08-362-652-55
US-08-362-652-55
US-08-362-652-55
US-08-362-652-55
US-08-362-652-55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3; Mismatches
                                                                                                                                                                                                                                                                                                                ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMUNICATION INVESTS 25,304
TELECOMUNICATION INFORMATION:
TELEPHONE: 312-474-6300
TELEPHONE: 312-474-6448
TELEPHONE: 25-3856
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
NAME: No. 5437958and, Greta E.
REGISTRATION NUMBER: 35,302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 1153 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 99.6
Matches 1133; Conservative
   single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
   STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-173-497-3
                                                                                                                                                                                                                                                                                                                                                                              US-08-173-497-3
                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE:
   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Appl
Appl
424399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
                                                                                                          ); Search time 13.5618 Seconds (without alignments)
3547.268 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 3, A Sequence 3, A Sequence 43, Sequence 43,
                                                                                                                                                                                                    1 FNLDTENAMTFQENARGFGQ.....FKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 3, 1
Sequence 3, 1
Sequence 3, 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Patent No. 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 44
Sequence 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sednence Sed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1: /cgn2_6/prodata/1/iaa/5A_COMB.pep:*
2: /cgn2_6/prodata/1/iaa/5B_COMB.pep:*
3: /cgn2_6/prodata/1/iaa/6A_COMB.pep:*
5: /cgn2_6/prodata/1/iaa/6B_COMB.pep:*
5: /cgn2_6/prodata/1/iaa/PCTUS_COMB.pep:*
6: /cgn2_6/prodata/1/iaa/PCTUS_COMB.pep:*
                                 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-173-497-3
US-08-286-889-3
US-08-145-618-3
US-08-652-3
US-08-605-672-3
US-08-605-672-3
US-08-943-33-33-3
US-09-193-043-3
US-09-193-043-3
US-09-193-043-3
US-08-476-062A-43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             $424399-2
0S-08-476-062A-44
0S-08-173-497-4
0S-08-286-889-4
0S-08-286-189-4
0S-08-162-618-4
0S-08-60S-618-4
0S-08-60S-672-4
0S-08-982-293A-4
0S-08-943-363-4
0S-09-98-305-4
0S-09-688-307A-4
0S-09-688-307A-4
0S-09-688-307A-4
0S-09-688-307A-4
0S-09-688-307A-4
0S-09-688-307A-4
0S-09-688-307A-4
0S-09-688-307A-4
0S-08-286-889-2
                 GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compug
                                                                                                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                  328717 segs, 42310858 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries
                                                                                                            14:13:09
                                                                               sw model
                                                                                                                                                                                                                                     BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                               OM protein - protein search, using
                                                                                                             2003,
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Issued Patents AA
                                                                                                                                                                                                                                                                                                                                               Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                         US-09-902-481B-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1163
1163
1163
1163
1163
1163
1163
                                                                                                             November 25,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5868
5868
5868
5868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Perfect score:
                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score
                                                                                                                                                                                                         Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Database
                                                                                                             Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š.
```

ö 9 94

Gaps

g ò g ò g ò g ò ď ò a ठे g ò a õ g ò 셤 õ g

```
136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NFEALKTIONOLREKIFAIEGTOTGSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          317 NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      257 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          77 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMGQLKKSKTLFSLMOYSERF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    137 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RIHFTFKEFQNNPNPRSLVKP1TQLLGRTHTATGVRKV1RELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           197 RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILVVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                          2 Integrin Alpha Subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 1153;
                                                                                                                                                                  & Borun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IndelB
                                                                                                                                                                           STREET: 233 South Wacker Drive, 6300 Sear Tower CITY: Chicago STATE: 111inois COUNTRY: United States ZIP: 60606-6402 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible COMPUTER: BAC COMPATIBLE PSTATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION NUMBER: US/08/286,889 FILING DATE:
                                                                                                                                                              3: Marshall, O'Toole, Gerstein, Murray 233 South Wacker Drive, 6300 Sear Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99.9%; Score 5868; DB 1;
99.6%; Pred. No. 0;
live 3; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 435
PRIOR APPLICATION DATA:
PTILING DATE: 23-DEC-1993
ATTORNEY/AGENT INFORMATION:
NAME: Williams Jr., Joseph A.
REGISTRATION NUMBER: P38.659
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEFAX: 312-474-6300
                                                GENERAL INFORMATION:
APPLICANT: Gallatin, W. Mich
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. 5470953e1 Human
NUMBER OF SEQUENCES: 51
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gergtein,
               Sequence 3, Application US/08286889 Patent No. 5470953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1153 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 99.6
Matches 1133; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-286-889-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RLNQTVIWDRPQVTFSENŲSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YDLALDSGRPHSRAVFNETKNSTRRGTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 976
                                                FPEALRGCPOEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                             240
                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HCTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960
TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 300
                                                                                                                                                                                                                                                                            NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                     GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                                                                                                                                                                                                                                                                                                                                                                                                                              ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KVEPFEVPNPLPLIVGSSÝGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRGORARWOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PVLRVKAIMEFNPREVARNVFECNDQVVKGKBAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                             RIHFTFKEFONNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                              317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1,021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1,081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1097
                                                    121
                                                                                      137
                                                                                                                           181
                                                                                                                                                            197
                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                        377
                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           716
```

රි සි

9 9 ò g ઠ 엄 8 g ò 임 ò

ö

16

180 196 240

```
RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     77 RLÓVÞVEAVNMSLGLSLAATTSPPÓLLACGÞTVHÓTCSENTYVKGLCFLFGSNLRQÓÞÓK 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RIHFTFKEFONNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILLVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRGORARWOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 1;
                              #
                              Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
99.9%; Score 5868; D
Best Local Similarity 99.6%; Pred. No. 0;
Matches 1133; Conservative 3; Mismatches
                                                                                                                                                                         PALLOATION NUMBER: US 08/286,889
FILING DATE: 5-AUG-1994
PRION PAPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US 08/362,652
FILING DATE: 21-DEC-1994
ATTORNEY/AGENT INFORMATION:
NAME: Williams JI., Joseph A.
REGISTRATION NUMBER: 38,659
REFERNEK/DEOKET NUMBER: 27866/32797
TELEPHONE: 312-474-6300
                                                                                                                                                                                                                                                                                                                       27866/32797
SOFTWARE: PATENT PC-DOS/MS-DOS SOFTWARE: PATENT Release #1.0, CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/485,618
                                                                                          CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/173,497
FILING DATE: 23-DEC-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                     TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1153 amino acids
                                                                                                                                                                                                                                                                                                                                                                   312-474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; TOPOLOGY: linear; MOLECULE TYPE: protein US-08-485-618-3
                                                                                                                                                                                                                                                                                                                                                                       TELEFAX:
TELEX: 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       977 RINQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FFGIOBEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGOGAFVRSOTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  960
                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   917 QLELPVKYAVYWVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 976
                                                             436
                                                                                               480
                                                                                                                               496
                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                       676
                                                                                                                                                                                                                                                                                                                                                                                                        736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KVEPFEVPNPLPLIVGSSVGGLLLAALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1153
                                               GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAA1ILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                               737 SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                  PRGQRARWQCDAVLYGEQGQQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                  HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                     PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                       YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                          677 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                          SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GPREFNVTVTVRNDGEDSYRIQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SGALKSTSCSINHP1FPENSEVTFN1TFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMOHOYOVSNLGORSLPISLVFLVPV
                            GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                               ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 Integrin Alpha Subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 E: Marshall, O'Toòle, Gerstein, Murray & Borun
233 South Wacker prive, 6300 Sear Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 3, Application US/08485618
Patent No. 5728533
GENERAL INFORMATION:
APPLICANT: Gallatin, W. Michael
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. 5728533el Human 2 INUMBER OF SEQUENCES: 103
CORRESPONDENCE ADDRESS:
ADDRESSE: Marshall, O'Toole, Gerstein, M. STRET: 233 South Wacker Drive, 6300 Sear (CITY: Chicago STATE: Illinois STATE: United States
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatibl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 3
US-08-485-618-3
                                                                                                                                                                                               497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1021
                                                                                                                             437
                                                                                                                                                               481
                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                       617
                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1097
                              361
                                                          377
                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q
                                                            유
                                                                                             ò
                                                                                                                           셤
                                                                                                                                                             ò
                                                                                                                                                                                           g
                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

ö

Gaps

ö

Gaps

180

196

120

92

240 256 300 316 360 376 420 480

496

436

540 556 9 616 999 9/9 720 736 780 196 840

```
77 RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCPLFGSNLRQOPQK 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TDGEKFGDPLGYEDVI PEADREGVIRYVI GVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  317 NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GPREFNUTVIVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NFEALKTIQNQLREKIFA1EGTQTGSSSSFEHEMSQEGFSAA1TSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           437 ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             677 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                            61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     137 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTUFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKL/TDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                         17 FWLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      191 RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                       1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                      ;
                                                                                                                                                                                                                                                             Score 5868; DB 1; Length 1153;
Pred. No. 0;
3; Mismatches 1; Indels 0
38,659
FR: 27866/32391
                    REFERENCE/DOCKET NUMBER: 2
TELECOMMUNICATION INFORMATION
                                                 TELEPHONE: 312-474-6300
TELEFAX: 312-474-6448
TELEX: 25-3856
INPORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1153 amino acids
TYPE: amino acids
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 99.6%;
Matches 1133; Conservative
     REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RLNQTVIWDRPQVTFSENL$STCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                             SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF 916
                                                                                                                                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                                                                                                                                                                                                                  QLELPVKYAVYWVVTSHGVŞTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 976
 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 616
                                                        9
                                                                                        676
                                                                                                                            720
                                                                                                                                                            736
                                                                                                                                                                                                780
                                                                                                                                                                                                                                  796
                                                                                                                                                                                                                                                                                                    856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                      GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                OLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLP1SLVFLVPV
                                                        PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                         PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLKEGQIQSVVT
                                                                                                                                               YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                    GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                          SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                            YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 3, Application US/08162652

Patent No. 5766850

GENERAL INFORMATION:
APPLICANT:
Callatin, W. Michael
APPLICANT:
Van der Vieren, Monica
TITLE OF INVENTION:
NUMBER OF SEQUENCE 393
CORRESPONDENCE ADDRESS:
ADDRESSEE:
ADDRESSEE:
ADTRESSEE:
ATTRESTE 233 South Wacker Drive, 6300 Sear Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/362,652
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/173,497
FILING DATE: 23-DBC-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/286,889
FILING DATE: 5-AUG-1994
ATTORNEY/AGBNT INFORMATION:
NAME: Williams Jr., Joseph A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STATE: Illinois
COUNTRY: United States
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chicago
                                                                                                                                                                                                                                                                                                                                                                                                                                            917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1097
                                                                                          617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1081
                      557
                                                        601
                                                                                                                            661
                                                                                                                                                              677
                                                                                                                                                                                                721
                                                                                                                                                                                                                                  737
                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                       797
                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                           857
                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    임
                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                       ò
                                                                                        셤
                                                                                                                            ò
                                                                                                                                                            셤
                                                                                                                                                                                             ò
                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
```

```
1080
                                                                                                                                                                                                              RLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                      RINGTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1036
                                                                                                                                                                                                                                                                                                                        1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGGGAFVRSQTET 1096
                                                                                                                            960
  856
                                                                                                                                                                                                                                                                                                                                                                                  KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                        SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                            QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                         QLELPUKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                  PFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTABILFNDSVFTLLPGQGAFVRSQTET
GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                       SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 Integrin Alpha Subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3: Marshall, O'Toole, Gerstein, Murray & Borun
233 South Wacker Drive, 6300 Sear Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: Chicago
STATE: 111inois
CONTRY: United States
CONTRY: United States
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/605,672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Gallatin, W. Michael
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: NO. 5817515e1 Human
NUMBER OF SEQUENCES: 103
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Geretein,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
FILING DATE: 23-DEC-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/286,889
FILING DATE: 5-ANG-1994
PRIOR APPLICATION NUMBER: US 08/362,652
FILING DATE: 21-DEC-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27866/32684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Williams Jr., Joseph A. REGISTRATION NUMBER: 38,659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 3, Application US/08605672
Patent No 5817515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION TELEPHONE: 312-474-6300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 1153 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEX: 25-3856
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          312-474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: amino a STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-605-672-3
                                                                                  857
                                                                                                                                                                    917
                                                                                                                                                                                                                                                                                                                                                                                                                            1097
                                       841
                                                                                                                            901
                                                                                                                                                                                                              961
                                                                                                                                                                                                                                                        977
                                                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                                                                                                    1081
                                                                                                                                                             ď
                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                             엄
                                                                                                                         ò
                                                                                                                                                                                                                                                                                                  ò
                                       ò
```

```
240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL 496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         976
                                                                                                                                                                                                                                                               256
                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                      316
                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                      436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT 660
                                                                                                                                               136
                                                                                                                                                                                                    196
                                                                                                                  RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                     96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSP1VLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               257 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                    317 NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                           377 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PVLRVKA IMEFNPREVARNVFECNDQVVKGKGAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                   77 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                    NFEALKTIONQLREKIPAIEGTQTGSSSSPEHEMSQEGPSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GPREFNVTVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                                                                                                                                          PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                              PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                         TDGEKFGDPLGYEDVI PEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                           GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                            FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                             FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                Gaps
                                ö
    Length 1153
                                Indels
                                1;
    5;
    B
                               3; Mismatches
  Score 5868;
Pred. No. 0;
99.98;
  Query Match
Best Local Similarity 99.6
Matches 1133; Conservative
                                                                                                                                                                                                      137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     617
                                                                                                                  61
                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     857
                                                                                                                                                                          121
                                                                                                                                                                                                                                                             197
                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                          원
                                                                                                                                                                          ò
                                                                                                                                                                                                8
                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                  ጵ
                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                           ठ
```

```
1021 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLFGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                    257 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 316
                                                                                                                                                                                                                                                                                 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFPKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                               317 NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                             797 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRINKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            917 QLELPVKYAVYWVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVPLVPV
RIHFTFKEFONNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                           NPEALKTIQNQLREKIFA1EGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                      GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                        ONTOWNESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                      HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                  TDGEKFGDPLGYEDVI PEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 3, Application US/08943363
Patent No. 5837478
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-943-363-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1097
                                                                                                                                                                                                                                                                                                                     377
                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                197
                                                             181
                                                                                                                                    241
                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                            음
                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                          6 ይ
                                                                                              셤
                                                                                                                                  ઠે
                                                                                                                                                               셤
                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                              FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1096
         FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        92
                                                                            KVEPFEVPNPLPLIVGSSVÖGLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RLOVPVEAVNMSLGLSLAATTSPPOLLACGPTVHOTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                        Subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1; Indels
                                                                                                                                                                                                                                                                                                                                                                                          CITY: Chicago
STATE: 111inois
CONTRY: United States
ZIP: 60606-6402
ZOUTRY: United States
ZOUTRY: United States
ZOUTRY: United States
ZONDTRY: United States
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CUMPUTER: Patentin Release #1.0, Version #1.25
CUMPUTER: Patentin Release #1.0, Version #1.25
CUMPUTER: Patentin Release #1.0, Version #1.25
CUMPUTER: Patentin Release #1.0, Version #1.25
CUMPUTER: Patentin Release #1.0, Version #1.25
CUMPUTER: DATE: US/08/482,293A
FILING DATE: 23-DEC-1993
FILING DATE: 23-DEC-1994
PRICK APPLICATION DATA:
APPLICATION NUMBER: US 08/286,889
FILING DATE: 5-MG-1994
PRICK APPLICATION NUMBER: US 08/362,652
FILING DATE: 21-DEC-1994
ATTORNEY/AGENT INPORMATION: ANAMER: 11-DEC-1994
ATTORNEY/AGENT INPORMATION: ANAMER: 11-DEC-1994
ATTORNEY/AGENT INPORMATION: ANAMER: 11-DEC-1994
ATTORNEY/AGENT INPORMATION: ANAMER: 11-DEC-1994
ATTORNEY/AGENT INPORMATION: ANAMER: 11-DEC-1994
ATTORNEY/AGENT INPORMATION: ANAMER: 11-DEC-1994
ATTORNEY/AGENT INPORMATION: ANAMER: 11-DEC-1994
ATTORNEY/AGENT INPORMATION: ANAMER: 11-DEC-1994
                                                                                                                                                                                                                                                                                                                                                            O'Toole, Gerstein, Murray &
cker Drive, 6300 Sear Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 5868;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                          Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Williams Jr., Joseph A.
REGISTRATION NUMBER: 38,659
REFERENCE/DOCKET NUMBER: 27866/32684
                                                                                                                                                                                                        Sequence 3, Application US/08482293A
Patent No. 5831029
GENERAL INFORMATION:
APPLICANT: Gallatin, W. Michael
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION:
NUMBER OF SEQUENCES: 103
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-474-6300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99.94;
                                                                                                                                                                                                                                                                                                                                                            3: Marshall, O'To
233 South Wacker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 1153 amino acids TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity >>...
Matches 1133; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEX: 25-3856
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        312-474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                              ADDŘESSEE:
STREET: 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-482-293A-3
                                                                                                                                                                                            US-08-482-293A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                            1037
                                                                                                                     1097
           1021
                                                                                1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                          셤
                                                                              ò
                                                                                                                 셤
           ઠ
```

556

480

496

436

616

780

us-09-902-481b-6.rai

```
RINQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GPREFNYTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV 856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF 916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                               377 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                            QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FFGI QEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLL.PGQGAFVRSQTET
                                                                                                                                                                                  PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                       PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                               HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                   HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                    PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GPREFNVTVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                        GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                     QNTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                            YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OS-09-193-043-3

Facent No. 6251395

GRNERAL INFORMATION:

APPLICANT: Gallatin, Michael W.

APPLICANT: Gallatin, Michael W.

APPLICANT: Gallatin, Michael W.

TITLE OF INVENTION: No. 6251395el Human 2

FILE REFERENCE: 27866/35004

CURRENT APPLICATION NUMBER: US/09/193,043

CURRENT FILING DATE: 1998-11-16

EARLIER FILING DATE: 1993-12-23

EARLIER FILING DATE: 1994-08-05

EARLIER FILING DATE: 1994-12-21

EARLIER APPLICATION NUMBER: 08/286,889

EARLIER FILING DATE: 1994-12-21

EARLIER FILING DATE: 1994-12-21

EARLIER FILING DATE: 1994-12-21

EARLIER FILING DATE: 1994-10-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 8
US-09-193-043-3
                                                                                                                                                                                                                                                                                                       557
                                                                                                                                                                                                                                                                                                                                                                                      617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1097
                                                                                                                                           437
                                                                                                                                                                                                                        497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          577
                                                                                                     421
                                                                                                                                                                                481
                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                        셤
                                                                                                                                                                                ઠે
                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                               요
                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                     ઠે
                                                                                                                                     요
                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NFEALKTIONOLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSROELNTIASKPPRDHVFOVN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           137 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FNLDTENAMTFQENARGFGØSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMBQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                             2 Integrin Alpha Subunit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1153;
APPLICANT: Gallatin, W. Michael
PEPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. 5837478el Human 2 Integrin Alpha
NUMBER OF SECUENCES: 114
CORRESPONDENCE ADDRESS:
ADDRESSES: Marshall, O'Toole, Gerstein, Murray & Borun
STREET: 23 South Wacker Drive, 6300 Sear Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                      STREET: 233 South Wacker Drive, 6300 Sear Tower CITY: Chicago STATE: 111inois COUNTRY: United States ZIP: 6606-6402 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: Floppy disk COMPUTER: Floppy disk COMPUTER: ParentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 5868; DB
Pred. No. 0;
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
CLASSIFICATION: 530
PRIOR PAPLICATION DATA:
APPLICATION NUMBER: US 08/173,497
FILING DATE: 23-DEC-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/286,889
FILING DATE: 5-AUG-1994
PRIOR APPLICATION NUMBER: US 08/362,652
FILING DATE: 21-DEC-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27866/32684
                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/943,363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Williams Jr., Joseph A. REGISTRATION NUMBER: 38,659
REFERENCE/DOCKET NUMBER: 27866/
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-474-6300
TELEPAX: 312-474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99.9%;
ilarity 99.6%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1153 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEX: 25-3856
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; MOLECULE TYPE: protein US-08-943-363-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 1133; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
```

g ò g ò g ò g ò 8 8

ò

1036

g ò a ò g ò g ò 엄 ઠે g ò g õ

ઠે

```
NFEALKTIQNOLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                         FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEBF
                                                                                                RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RIHFTFKEFONNPNPRSLVKPITOLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
QLELDVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLDISLVFLVPV
                                          RINOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP
                                                         137 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IndelB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 5868; DB 4;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                    Beta-2
                                                                                                                                                                                                                                                                                                GENERAL INFOGRATION:
APPLICANT: Gallatin, Michael W.
APPLICANT: Van der Vieren, Monica
TITLE OF INVENTION: No. 6432404el Human Beta-2
TITLE REPERBNCS: 27866/36646
CURRENT APPLICATION NUMBER: US/09/688,307A
CURRENT FILING DATE: 1200-10-13
PRIOR APPLICATION NUMBER: 08/193,043
PRIOR APPLICATION NUMBER: 08/193,497
PRIOR FILING DATE: 1996-02-22
PRIOR FILING DATE: 1996-02-22
PRIOR FILING DATE: 1994-08-05
PRIOR FILING DATE: 1994-08-05
PRIOR FILING DATE: 1994-12-21
PRIOR FILING DATE: 1994-12-21
PRIOR FILING DATE: 1994-10-03
PRIOR FILING DATE: 1994-10-03
PRIOR FILING DATE: 1997-10-03
PRIOR FILING DATE: 1997-10-03
PRIOR FILING DATE: 1997-10-03
PRIOR FILING DATE: 1997-10-03
PRIOR FILING DATE: 1997-10-03
PRIOR FILING DATE: 1997-10-03
PRIOR PILING DATE: 1997-10-03
PRIOR PILING DATE: 1997-10-03
PRIOR PILING DATE: 1997-10-03
PRIOR PILING DATE: 1997-10-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3; Mismatches
                                                                                                                                                                                                                                                           Sequence 3, Application US/09688307A Patent No. 6432404 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 1133; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: HOMO
                                                                                                                                                                                                                                                  -09-688-307A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-688-307A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                             196
                                                                         977
                  917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                     g
                                                                                                                              요
                                                                                                                                                          ઠે
                                     ઠે
                                                                                                    δ
                                                                                                                                                                                     셤
                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960
                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                       196
                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                256
                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                         316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          556
                                                                                                                                                                            9
                                                                                                                                                                                                       96
                                                                                                                                                                                                                                                                                                                                                                                                                           257 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRGELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSFIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                              TDGEKFGDPLGYEDVI PEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NFEALKTIQNQLREKI PAI EGTQTGSSSSFEHEMSQEGFSAAI TSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ONTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                           FNLDTENAMTFQENARGFGGSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                             GSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                     RIHFTFKEFONNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                            FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                 Gaps
                                                                                                                                                 ö
                                                                                                                      Length 1153;
                                                                                                                                                 1; Indels
                                                                                                                      DB 3;
                                                                                                                     Score 5868; DB
Pred. No. 0;
3; Mismatches
                                                                                                                                                                                                                                                                                             FPEALRGCPQEDSDIAFLID
                                                                                                                      99.94;
    NUMBER OF SEQ ID NOS: 114
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 3
                                                                                                                                  Best Local Similarity 99.6 Matches 1133; Conservative
                                                                           ORGANISM: Homo sapiens
                                                 LENGTH: 1153
                                                                                          US-09-193-043-3
                                                                                                                                                                                                                                                      . 44
                                                                                                                                                                                                                                                                                                                          137
                                                                                                                                                                                                                                                                                                                                                                                 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      677
                                                                                                                                                                                                          17
                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 6·8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
```

a

6 6 6

8 6 8

ò g ે

ò

ö

9 76 136 180 196 240 256 300 316

```
RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      257 TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL 496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481 PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGIRKVVRELFNITNGARKNAFKILVVI 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NPEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541 HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   137 PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRG-RARWOCDAVLYGEOGOPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1152;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Score 5837.5;
; Pred. No. 0;
3; Mismatches
COMPUTER: IBM Compatible
OPERATING SYSTEM: Windows95
SOFTWARE: FastSEG for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION DATA:
FILING DATE: 07-UUN-1995
FILING DATE: 07-UUN-1995
APPLICATION NUMBER: 08/216,081
FILING DATE: 21-MAR-1994
APPLICATION NUMBER: 07/637,830
FILING DATE: 18-UN-1991
APPLICATION NUMBER: 07/539,842
FILING DATE: 18-UN-1990
APPLICATION NUMBER: 07/539,842
FILING DATE: 18-UN-1990
APPLICATION NUMBER: 07/212,573
FILING DATE: 18-UN-1998
                                                                                                                                                                                                                                                                                                             NAME: Freeman, John W.
REGISTRATION UNUBER: 29,066
REFRENCE/DOCKET NUMBER: 0079
TELECOMUNICATION INFORMATION:
TELEPHONE: 617/542-5070
TELEFAX: 617/542-8906
TELEX: 200154
INFORMATION FOR SEQ ID NO: 43:
SEQUENCE CHARACTERISTICS:
LENGTH: 1152 amino acids
TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 99.4
Matches 1130; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE: protein PRAGMENT TYPE: internal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-476-062A-43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1037 FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QLELPVKYAVYMVVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      917 QLELPVKYAVYMVVTSHGV$TKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 976
                                                                                                                     480
                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                           PULRVKAIMEFNPREVARNYFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT 676
                                                                                                                                                                                                                                                                                                                                                                                                                                                        677 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF 736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              797 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV 856
                                                                                                                                                           496
                                                                                                                                                                                                                                                                                                                                                                                                                                   YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GPREFNVTVTVRNDGEDSYŘTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SGALKSTSCSINHPIFPEN$EVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF 900
     317 NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTWKTEF
                                                                                                                                                                                               GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                   377 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                                                                                     QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                         437 ONIGHWESNANVKGTQIGAYEGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                             HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                       PVLRVKAIMEFNPREVARNVFECNDOVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1097 KVEPPEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-476-062A-43

Sequence 43, Application US/08476062A

Sequence 43, Application US/08476062A

Sequence 43, Application US/08476062A

Sequence 43, Application US/08476062A

Sequence 43, Application US/08476062A

SETTLE NOTE OF SEQUENCES:

SETTLE OF INVENTION: RESPONSES WITH BETAZ INTEGRINS

NUMBER OF SEQUENCES:

SORRESPONDENCE ADDRESS:

ADDRESSEE: Fish & Richardson P.C.

STREET: 225 Franklin Street

CITY: Boston

STATE: MA

COUNTY: US

COUNTY: US

STATE: MA

COMPUTER READABLE FORM:

MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1021
                                                                                                                                                                                                                                                                                                                                                                                           617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1081
                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                         ò
                                                                               셤
                                                                                                                     ઠે
                                                                                                                                                   g
                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

9,

```
음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                     吕
                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ∙&
                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLFQGGAFVRSQTET 1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RLNOTVIWDRPQVIFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDIP 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTET 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QLELPVKYAVYMVTSHGVSTKYLNFTASENTSRVMQHQYQVSNLGQRSLPISLVFLVPV 960
                                                                                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             915
                                                                                                                                                          720
                                                                                                                                                                                                                                                                                             795
                                                                   99
                                                                                                           675
                                                                                                                                                                                                       735
                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                          GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV 840
                                                                                                                                                                                                                                                                                                                                                                                    855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KVEPPEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSEGGPPGAEPQ 1137
                                                                                                                                                                                                                                                                             SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                        SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                              SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                            SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRINKTEF
                            HGTSGSGISPSHSORIAGSKLSPRLOYFGOSLSGGODLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                        GPRESNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                   PVLRVKAIMEFNPREVARNVFECNDOVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
Sequence 43, Application PC/TUS9601314
GENERAL INFORMATION:
APPLICANT: M. Amin Arnaout
TITLE OF INVENTION: METHODS FOR IDENTIFYING INTEGRIN
TITLE OF INVENTION: ANTAGONISTS
NUMBER OF SEQUENCES: 78
CORRESPONDENCE: 78
CORRESPONDENCE: Fish & Richardson P.C.
STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: HOSPICATION COUNTRY: HOSPICATION COUNTRY: HOSPICATION COUNTRY COUNTRY COUNTRY COUNTRY COUNTRY COUNTRY COUNTRY COUNTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY COUNTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY COUNTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY COUNTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTRY CONTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Boston
STATE: Massachusetts
COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PCT-US96-01314-43
                                                                                                                616
                                                                                                                                                                                                                                                                                    736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1096
                                                                                                                                                                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                                                                                                                                                                                                  941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1021
                            556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                        601
                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ठ
                                                                      ò
                                                                                                           염
                                                                                                                                                          ò
                                                                                                                                                                                                                                                   ठ
                                                                                                                                                                                                                                                                                                                                          ò
```

```
720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         735
                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       136
                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                     196
                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                               RLOVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                                                                                                                                                    94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YDIALDSGRPHSRAVPNETKNSTRROTOVLGLTQTCETLKLQLPNCIEDPVSP1VLRLNF .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SLVGTPLSAFGNURPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NFEALKTIONOLREKIFAIEGTOTGSSSSFEHEMSOEGFSAAITSNGPLLSTVGSYDWAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      676 YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GPREFNUTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GPRESNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                  RIHFTFKEFONNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                                                                  TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QNTGMWESNANVKGTQ1GAYFGASLCSVDVDSNGSTDLVL1GAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                         FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLXQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                         FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                        PNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                             Gaps
                                                                                                                                                             ;
                                                                                                                                Length 1152
                                                                                                                                                             3; Indels
                                                                                                                                DB 5;
                                                                                                                           Query Match
99.4%; Score 5837.5;
Best Local Similarity 99.4%; Pred. No. 0;
Matches 1130; Conservative 3; Mismatches
                43
TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                        TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: linear
                                            1152
                                                                                                    PCT-US96-01314-43
                                            LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       856
                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                            257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       437
                                                                                                                                                                                                                                                                              11
                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                        137
                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                  197
                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
```

SULT -089. Pategu TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	ADDRESSEE: Fish & Richardson P.C. STREET: 225 Franklin Street CITY: Boston STATE: MA CONTRY: US CONTRY: US ZIP. 02110-2804 COMPUTER: READABLE FORM: MEDIUM TYPE: Diskette COMPUTER: TBM COMPASI OPERATING SYSTEM: Windows95 SOFTWARE: FastSEQ for Windows Version 2.0 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/476,062A FILING DATE: 07-UN-1995 PRION APPLICATION NUMBER: 07/637,830 FILING DATE: 21-MAR-1994 APPLICATION NUMBER: 07/637,830 FILING DATE: 04-JAN-1991 APPLICATION NUMBER: 07/637,830
8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6	
901 QLEEDVKYAVYMVTSHQOSTKKLNFTASENTSHWQHOYOVSHLGOSSLPISLU 916 QLEELVKYAVYMVTSHQOSTKKLNFTASENTSHWQHOYOVSHLGOSSPPISLU 916 QLEELVKYAVYMVTSHQOSTKKLNFTASENTSHWQHOYOVSHLGOSSPPISLU 917 STANDAY WARAYTHOWN THE SHARE SHA	Db 197 RIHFTFKEFÖNNPNPRSLVKPITQLIGRTHTATGIRKVVRELFNITNGARKNAFKILVVI 256  Qy 241 TDGEKFGDPLGVEDVIDEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFGVN 300

M.

```
855 SQGTWSTSCRINHLIFRGGAQITFLATFDVSPKAVLGDRLLLTANVSSENNTPRTSKTTF
                                                                                                                                                                                                        915 QLELPVKYAVYTVVSSHEQFTKYLNFSESEEKESHVAMHRYQVNNLGQRDLPVSINFWVP
                                                                                                                                                                                                                                                                              737 TLVGKPLLAFRNLRPMLAALAQRYFTASLPFEKNCGADHICQDNLGISFSFPGLKSLLVG
                                      781 GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                           797 SNLELNAEVWVWNDGEDSYGTTITFSHPAGLSYRYVAEGQKQGQLRSLHLTCDSAPVG--
                                                                                                          SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                   QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP
                                                                                                                                                                                                                                                         VRLNQTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI
                                                                                                                                                                                                                                                                                                                                  1020 PFFGIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE
                                                                                                                                                                                                                                                                                                                                                                                                          1080 TKVEPFEVPNPLPLIVGSSVGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: M. Amin Arnaout
TITLE OF INVENTION: METHODS FOR IDENTIFYING INTEGRIN
TITLE OF INVENTION: ANTAGONISTS
NUMBER OF SEQUENCES: 78
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 59.1%; Score 3473; DB 5;
Best Local Similarity 61.3%; Pred. No. 3.9e-285;
Matches 692; Conservative 138; Mismatches 293;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Boston
CITY: Boston
COUNTR: Massachusetts
COUNTR: Massachusetts
COUNTR: Massachusetts
CONFRE: 10.5.A.

ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5. Diskette, 1.44 Mb
MEDIUM TYPE: 3.5. Diskette, 1.44 Mb
COMPUTER: 18M PS/2 Model 502 or 55.SX
OPERATING SYSTEM: MS-DOS (Version 5.0)
SOFWARE: Wordberfect (Version 5.1)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US96/01314
FILING DATE: 30-JAN-96
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/380,167
FILING DATE: 30-JAN-95
ATTORNEY/AGENT INFORMATION:
NAME: John W. Freeman
NAME: John W. Freeman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       00786/267001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 44, Application PC/TUS9601314
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE: (617) 542-5070 TELEFAX: (617) 542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (617) 542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PCT-US96-01314-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PCT-US96-01314-44
                                                                                                                                                                                     901
                                                                                                                                                                                                                                                         096
                                                                                                                                                                                                                   음
                                                                                                                                                                                                                                                                                        셤
                                                                      셤
                                                                                                          δ
                                                                                                                                       ద
                                                                                                                                                                               ò
                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    80 GLQVPPEAVNMSLGLSLASÄTTSPSQLLACGPTVHHECGRNMYLTGLCFLLGPT--QLTQR 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TDGKKEGDSLDYKDVIPMADAAGIIRYAIGVGLAFQNRNSWKELNDIASKPSQEHIFKVE 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       318 DFDALKDIQNQLKEKIFAIEGTETTSSSFELEMAQEGFSAVFTPDGPVLGAVGSFTWSG 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361 GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 RLOVPVEAVNMSLGLSLAAITSPPOLLACGPTVHOTCSENTYVKGLCFLFGSNLROOPOK 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                PRGWR-RWWCDAVLYGEQGHPWGRFGAALTVLGDVNGDKLTDVV1GAPGEEENRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QNTGMWESNANVKGTQIGA,YFCASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                                                           1 FNLDTENAMTFOENARGFGOSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                         .
9
                                                                                                                                                                                                                                                                                                                                                   Length 1163;
                                                                                                                                                                                                                                                                                                                                                   Query Match
59.1%; Score 3473; DB 2; Length 1:
Best Local Similarity 61.3%; Pred. No. 3.9e-285;
Matches 692; Conservative 138; Mismatches 293; Indels
                                                                                                              00786/068003
FILING DATE: 18-JUN-1990
APPLICATION NUMBER: 07/212,573
FILING DATE: 28-JUN-1988
ATTORNEY,AGENT INFORMATION:
NAME: Freeman, John W.
                                                                      NAME: Freeman, John W.
REGISTRATION NUMBER: 29.066
REFERENCE/DOCKET NUMBER: 0071
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617/542-5070
TELEFAX: 617/542-8906
                                                                                           29,066
                                                                                                                                                                                                                                        : 1163 amino acids
amino acid
                                                                                                                                                                             TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 1163 amino aci
                                                                                                                                                                                                                                                                                               MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                         TYPE: amind
TOPOLOGY:
                                                                                                                                                                                                                                                                                                                 US-08-476-062A-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               요
                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
```

4

Gaps

```
Chicago
: Illinois
                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                   STREET: 2
CITY: Chi
STATE: 11
COUNTRY:
                                              RESULT 15
US-08-173-497-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-173-497-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        258
             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VRINGTVIWDRPQVTFSENUSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PFFCIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PSFSVOEELDFILKGNLSFGWVRQILQKKVSVVSVAEITFDTSVYSQLPGGEAFMRAQTT 1094
                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                       540
                                             RIQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK 120
                                                                                         PPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF 180
                                                                                                                 197
                                                                                                                                                                                   TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSROELNTIASKPPRDHVFOVN 300
                                                                                                                                                                                                NFEALKTIQNQLREKIFAIEGTQTGSSSSFEHEMSQEGFSAAITSNGPLLSTVGSYDWAG 360
                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                          616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    900
                                                            257
                                                                                                                                                                                                                                                      377
                                                                                                                                                                                                                                                                             GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR 420
                                                                                                                                                                                                                                                                                          556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMOHOYQVSNLGQRSLPISLVFLVP 959
   9
                                                                                                                                                                                                                                             677 LDLALDPGRLSPRATFQETKANSLSRVRVLGLKAHCENFNLLLPSCVEDSVTPITLRLNP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        915 QLELPVKXAVYTVVSSHEQPTKYLNFSESEEKESHVAMHRYQVNNLGQRDLPVSINFWVP
              FNLDTEELTAFRVDSAGFGDSVVQYANSWVVVGAPQKITAANQTGGLYQCGYSTGACEPI
                                                                                                               LPVSROBCPROBODIVFLIDGSGSISSRNFATMMNFVRAVISQFQRPSTQFSLMQFSNKF
                                                                                                                                                    PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                                                                                                                                                                                                                                                     HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTWDGLVDLTVGAQGHVLLLRSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SNLELNAEVWWNDGEDSYGTIIFSHPAGLSYRYVAEGQKQQQLRSLHICDSAPVG--
                                                                                                                                       RIHFTFKEFQNNPNPRSLVKPITQLLGRTHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                           QNTGMWESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PVLRVKAIMEFNPREVARNVPECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SGALKSTSCSINHPIPPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRTNKTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SQGTWSTSCRINHLIFRGGAQITFLATFDVSPKAVLGDRLLLTANVSSENNTPRTSKTTF
FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TKVEPFEVPNPLPLIVGSSYGGLLLLALITAALYKLGFFKRQYKDMMSE 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                         557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781 (
                                                                                         121
                                                                                                                                                                                                                                                  318
                                                                                                                                                                                                                                                                                                                                                                                             498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1020
                      20
                                                                  80
                                                                                                                138
                                                                                                                                        181
                                                                                                                                                            198
                                                                                                                                                                                                          258
                                                                                                                                                                                                                                                                                                                                                438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              096
                                             19
                                                                                                                                                                                   241
                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         855
                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1035
                                                                                                                                                                                ò
                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q
                     a
                                                                요
                                                                                       ò
                                                                                                            셤
                                                                                                                                     ò
                                                                                                                                                         g
                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

```
TDGKKEGDSLDYKDVIPMADAAGIIRYAIGVGLAFQNRNSWKELNDIASKPSQEHIFKVE 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TDGEKFGDPLGYEDVIPEADREGVIRYVIGVGDAFRSEKSRQELNTIASKPPRDHVFQVN 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20 FWLDTEELTAFRUDSAGFGDSVVQYANS#VVVGAPQKIIAANQIGGLYQCGYSTGACEPI 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 RLQVPVEAVNMSLGLSLAATTSPPQLLACGPTVHQTCSENTYVKGLCFLFGSNLRQQPQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121 FPEALRGCPQEDSDIAFLIDGSGSIIPHDFRRMKEFVSTVMEQLKKSKTLFSLMQYSEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 RIHFTFKEFONNPNPRSLVKPITOLLGRIHTATGVRKVIRELLNITNGARKNAFKILIVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 FNLDTENAMTFQENARGFGQSVVQLQGSRVVVGAPQEIVAANQRGSLYQCDYSTGSCEPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
Length 1163;
                                                                                                                                                                                                                                 Integrin Alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                Sequence 4, Application US/08173497

Patent No. 5477958

GENERAL INFORMATION:

APPLICANT: Gallatin, W. Michael

APPLICANT: Van Der Vieren, Monica

ITILE OF INVENTION:

ITILE OF INVENTION: Subunit

NUMBER OF SEQUENCES: 29

CORRESPONDENCE ADDRESSE:

ADDRESSEE: Marshall:

STREET: 233 S. Wacker Drive, 6300 Sears Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             58.7%; Score 3450; DB 1; ilarity 61.0%; Pred. No. 3.4e-283; Conservative 144; Mismatches 290;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: No. 5437958and, Greta E.
REGISTRATION NUMBER: 35,302
REFERNICE/DOCKET NUMBER: 27866/31363
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-474-6300
TELEFAX: 312-474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OPERATING SYSTEM: PC-DOS/MS-DOS
SUFTWARE: PATENTIN Release #1.0,
SUGRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/173,497
                                                                                                                                                                                                                                                                                                                                                                                                    TELEX. 25-3856
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 1163 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                al Similarity
689; Conservat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC
OPERATING SYSTEM:
```

```
PFFCIQEEFNATLKGNLSFDWYIKTSHNHLLIVSTAEILFNDSVFTLLPGQGAFVRSQTE 1079
                                                                                                                                                                                                                                                                                                                                                                                                                       960 VRLNOTVIWDRPQVTFSENLSSTCHTKERLPSHSDFLAELRKAPVVNCSIAVCQRIQCDI 1019
                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                        540
                                                                                                         556
                                                                                                                                    9
                                                                                                                                                                      SLVGTPLSAFGNLRPVLAEDAQRLFTALFPFEKNCGNDNICQDDLSITFSFMSLDCLVVG 780
                                                                                                                                                                                                                                         GPREFNVTVTVRNDGEDSYRTQVTFFFPLDLSYRKVSTLQNQRSQRSWRLACESASSTEV 840
                                                                                                                                                                                                                                                                                                               QLELPVKYAVYMVVTSHGVSTKYLNFTAS-ENTSRVMQHQYQVSNLGQRSLPISLVFLVP 959
                                   437
                                                                      497
                                                                                                                          HGTSGSGISPSHSQRIAGSKLSPRLQYFGQSLSGGQDLTMDGLVDLTVGAQGHVLLLRSQ 600
                                                                                                                                                                                                                                                                               797 SNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEGQKQQQLRSLHLTC--CSAPVG 854
318 DFDALKDIQNQLKEKIFAIBGTETISSSFELEMAQEGFSAVFTPDGPVLGAVGSFTWSG 377
                                                                                                                                                                                                                                                                                                                                                   SGALKSTSCSINHPIFPENSEVTFNITFDVDSKASLGNKLLLKANVTSENNMPRINKTEF
                                                           YDLALDSGRPHSRAVFNETKNSTRRQTQVLGLTQTCETLKLQLPNCIEDPVSPIVLRLNF
                            PRGQRARWQCDAVLYGEQGQPWGRFGAALTVLGDVNGDKLTDVAIGAPGEEDNRGAVYLF
                                                                                                                                                           PVLRVKAIMEFNPREVARNVFECNDQVVKGKEAGEVRVCLHVQKSTRDRLREGQIQSVVT
                   GVFLYTSKEKSTFINMTRVDSDMNDAYLGYAAAIILRNRVQSLVLGAPRYQHIGLVAMFR
                                                     ONTGMMESNANVKGTQIGAYFGASLCSVDVDSNGSTDLVLIGAPHYYEQTRGGQVSVCPL
                                                                                                                                                                                                                                                                                                                                                                                                                                               557 1
                                                                                                                                                                                                                                                                                                                                                                                                             1020
                                                                                                         498
                                                                                                                                                                              617
                                                                                                                                                                                                                                                                                                                                                                                                                               1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                1080
                                                                                                                           541
                                                                                                                                                            601
                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                     81
                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                          915
                                                    451
                                                                                        481
                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                    6 6 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                          요.
                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                9 6
                                                   6 6 6 6 6 6
                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                 g
 유
                                  g
                                                                                                                                                                                              ò
                                                                                                                                                                                                           a
                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                    ò
                    ò
```

Search completed: November 25, 2003, 14:23:24 Job time : 16.5618 secs